

MAYTAG

Amana

IENN-AIR

This manual is to be used by qualified appliance technicians only. Maytag does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

# 2006 Over-the-Range Domestic Microwaves

This Base Manual covers general information
Refer to individual Technical Sheet
for information on specific models
This manual includes, but is
not limited to the following:

AMV5164BA\* AMV5164BC\* AMV5206BA\* AMV6167BD\* MMV1153BA\* MMV4205BA\* MMV5165BA\* MMV5207BA\* MMV5207BC\*

UMV1152CA\* AMV1154BA\*

JMV8166BA\* JMV8208BA\*

JMV8208BC\*

JMV9169BA\*



# Important Information

Pride and workmanship go into every product to provide our customers with quality products. It is possible, however, that during its lifetime a product may require service. Products should be serviced only by a qualified service technician who is familiar with the safety procedures required in the repair and who is equipped with the proper tools, parts, testing instruments and the appropriate service manual. **REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL BEFORE BEGINNING REPAIRS.** 

### Important Notices for Consumers and Servicers



### **WARNING**

To avoid risk of serious injury or death, repairs should not be attempted by an unauthorized service personnel, dangerous conditions (such as exposure to electrical shock) may result.



### **CAUTION**

Maytag will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, assume responsibility for any personal injury or property damage which may result.

To locate an authorized servicer, please consult your telephone book or the dealer from whom you purchased this product. For further assistance, please contact:

#### **Customer Service Support Center**

CAIR Center

Web Site	Telephone Number
WWW.AMANA.COM	1-800-843-0304
WWW.MAYTAG.COM	1-800-688-9900
WWW.JENNAIR.COM	1-800-536-6247
CAIR Center in Canada	1-800-688-2002
Amana Canada Product	1-866-587-2002

Recognize Safety Symbols, Words, and Labels



### **DANGER**

**DANGER**—Immediate hazards which **WILL** result in severe personal injury or death.



### **WARNING**

WARNING—Hazards or unsafe practices which COULD result in severe personal injury or death.



### CAUTION

**CAUTION**—Hazards or unsafe practices which **COULD** result in minor personal injury or product or property damage.

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# **Important Safety Information**



### CAUTION

Read the following information to avoid possible exposure to microwave radiation:

The basic design of the Maytag and Amana microwave oven makes it an inherently safe device to both use and service. However, there are some precautions which should be followed when servicing the microwave oven to maintain this safety. These are as follows:

- 1. Always operate the unit from an adequately grounded outlet. Do not operate on a two-wire extension cord.
- 2. Before servicing the unit (if unit is operable), perform the microwave leakage test.
- 3. The oven should never be operated if the door does not fit properly against the seal, the hinges or hinge bearings are damaged or broken; the choke is damaged, (pieces missing, etc.); or any other visible damage can be noted. Check the choke area to ensure that this area is clean and free of all foreign matter.
- If the oven operates with the door open and produces microwave energy, take the following steps.
  - A. Tell the user not to operate the oven.
  - B. Contact Maytag immediately.
- 5. Always have the oven disconnected when the outer case is removed except when making the "live" tests called for in the Service Manual. Do not reach into the equipment area while the unit is energized. Make all connections for the test and check them for tightness before plugging the cord into the outlet.
- 6. Always ground the capacitors on the magnetron filter box and H. V. Capacitor with an insulated-handle screwdriver before working in the high voltage area of the equipment compartment. Some types of failures will leave a charge in these capacitors and the discharge could cause a reflex action which could make you injure yourself.

- 7. In the area of the transformer, capacitor, diode, and magnetron there is HIGH VOLTAGE. When the unit is operating, keep this area clean and free of anything which could possibly cause an arc or ground, etc.
- 8. Do not for any reason defeat the interlock switches. There is no valid reason for this action at any time; nor will it be condoned by Maytag.
- IMPORTANT: Before returning a microwave to a customer, check for proper switch interlock action. The primary and secondary switches MUST open when the door is actuated. The monitor switch MUST close at a 1/4 inch when the door is opened.
- 10. Before returning a microwave to a customer, verify the door spacing is reasonably uniform along the top, bottom, and sides, and that it measures 1/8 inch or less.
- 11. The microwave oven should never be operated with:
  - Any components removed and/or bypassed.
  - · Any of the safety interlocks failing.
  - Any of the seal surfaces failing, missing, or damaged.
- 12. To ensure that the unit does not emit excessive microwave leakage and to meet the Department of Health Human Service guidelines, check the oven for microwave leakage using Narda Model 8100, 8200, Holaday HI1500, HI1501 or Simpson 380M leakage monitor as outlined in the instructions. The maximum leakage level allowed is 4mW/cm².
- 13. If servicer encounters an emission reading over 4 mW/cm² the servicer must cease repair and contact the Maytag Service Department immediately for further direction. Maytag will contact the proper Government Agency upon verification of the test results.

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# Microwave Leakage Testing



### WARNING

Check for radiation leakage after servicing. Should the leakage be more than 4mW/cm² inform Maytag immediately. After repairing or replacing any radiation safety device, keep a written record for future reference, as required by D.H.H.S. and HEW regulations. This requirement must be strictly observed. In addition, the leakage reading must be recorded on the service repair ticket while in the customer's home.

#### **Equipment**

- · Electromagnetic radiation monitor
- · 600 cc glass beaker

# **Procedure For Measuring Radiation Leakage**

Note before measuring -

- Do not exceed meter full scale deflection. Leak monitor should initially be set to the highest scale.
- To prevent false readings the test probe should be held by the grip portion of the handle only.
- The scan speed is equal to one inch per antenna revolution or one inch per second if antenna speed is unknown.
- Areas to be checked are all door seal areas and any venting parts.
- Leakage with the outer panel removed...4mW/cm² or less.
- Leakage for fully assembled oven with door normally closed ...4mW/cm² or less.
- Leakage for a fully assembled oven (before the latch switch (primary) is interrupted) while pulling the door ... 4mW/cm² or less.
- 1 . Pour 275 ±15 cc (9 oz ±1/2 oz) of 20 ± 5°C (68 ± 9°F) water in a beaker which is graduated to 600 cc and place the beaker in the center of oven.
- Set the radiation monitor to 2450 MHz and use it following the manufacturer's recommended test procedure to assure correct results.
- 3. While measuring the leakage, always use the two inch (5 cm) spacer supplied with the probe.
- Press the start pad or turn on the timer and with the magnetron oscillating, measure the leakage by holding the probe perpendicular to the surface being measured.

# Measurement With the Outer Panel Removed



### **DANGER**

Avoid contacting any high voltage components.

Whenever you replace the magnetron, measure for radiation leakage before the outer panel is installed and after all necessary components are replaced or adjusted. Special care should be taken in measuring around the magnetron.

#### **Measurement With a Fully Assembled Oven**

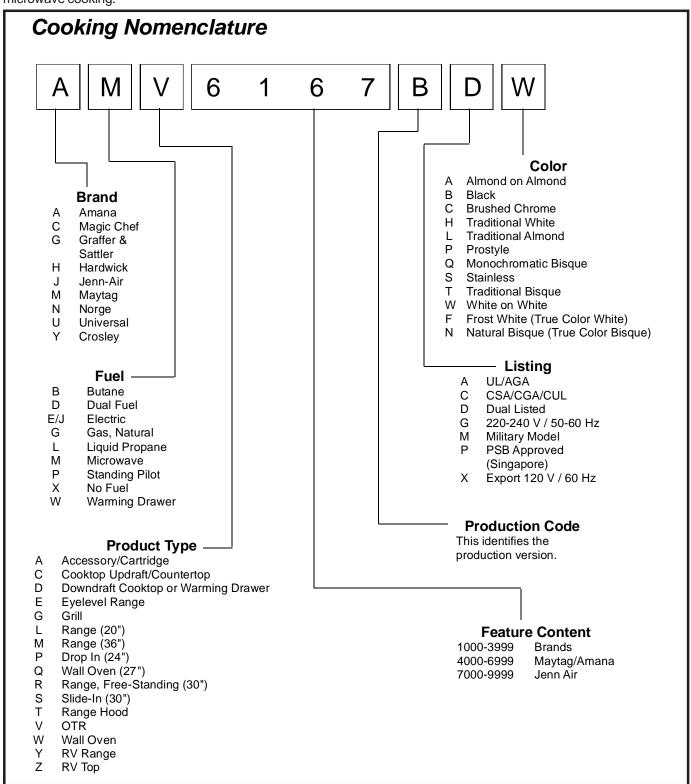
After all components including the outer panel are fully assembled, measure for radiation leakage around the door periphery, the door viewing window, the exhaust opening, and air inlet openings.

#### Record Keeping and Notification After Measurement

- After any adjustment or repair to a microwave oven, a leakage reading must be taken. Record this leakage reading on the repair ticket even if it is zero.
- 2. A copy of the repair ticket and the microwave leakage reading should be kept by the repair facility.

This manual provides basic instructions and suggestions for handling, installing, and servicing microwave ovens. The directions, information, and warnings in this manual are developed from experience with, and careful testing of the product. If the unit is installed according to the Installation Instructions, it will operate properly and will require minimal servicing. A unit in proper operating order ensures the consumer all the benefits provided by efficient microwave cooking.

This manual contains information needed by authorized service technicians to install and service the microwave pertaining to this manual. There maybe, however some information which needs further explanation. Refer to individual Installation Instructions, Use and Care, Technical Sheets, or toll free technical support line to answer questions from authorized service technicians.



#### **Specifications**

Refer to individual Technical Sheet for specification information.

#### Placement of the Oven

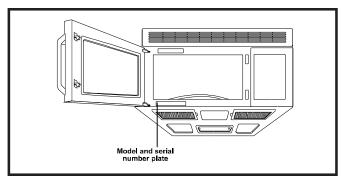
This microwave can be easily placed in the kitchen, family room, or anywhere else in the house. Place the oven on a flat surface such as a kitchen countertop or a specially designed microwave oven cart. Do not place oven above a gas or electric range. Free air flow around the oven is important.

#### Do Not Block Air Vents

All air vents must be kept clear during cooking. If air vents are covered during operation the oven may overheat. In this case, a sensitive thermal safety device automatically turns the oven off. The oven will be inoperable until the oven has cooled sufficiently.

#### **Location of Model Number**

To request service information or replacement parts, the service center will require the complete model, serial, and manufacturing number of your microwave oven. The number is located inside the oven door cavity as shown in the illustration below.



#### **Model Identification**

Complete enclosed registration card and promptly return. If registration card is missing:

- For Amana product call 1-800-843-0304 or visit the Web Site at www.amana.com
- For Maytag product call 1-800-688-9900 or visit the Web Site at www.maytag.com
- For Jenn-Air product call 1-800-536-6247 or visit the Web Site at www.jennair.com
- For product in Canada call 1-866-587-2002 or visit the Web Sites at www.amana.com, www.maytag.com or www.jennair.com

When contacting provide product information located on rating plate.

Record the following:

Model Number:

Manufacturing Number:

Serial or S/N Number:

Date of purchase:

Dealer's name and address:

#### Service

Keep a copy of sales receipt for future reference or in case warranty service is required. To locate an authorized servicer:

- For Amana product call 1-800-628-5782 or visit the Web Site at www.amana.com
- For Maytag/Jenn-Air product call 1-800-462-9824 or visit the Web Sites at www.maytag.com or www.jennair.com
- For product in Canada call 1-866-587-2002 or visit the Web Sites at www.amana.com, www.maytag.com or www.jennair.com

Warranty service must be performed by an authorized servicer. We also recommend contacting an authorized servicer, if service is required after warranty expires.

#### **Parts and Accessories**

Purchase replacement parts and accessories over the phone. To order accessories for your product call:

- For Amana product call 1-877-232-6771 or visit the Web Site at www.amana.com
- For Maytag/Jenn-Air product call 1-800-462-9824 or visit the Web Sites at www.maytag.com or www.jennair.com
- For product in Canada call 1-866-587-2002 or visit the Web Sites at www.amana.com, www.maytag.com or www.jennair.com

#### **Extended Service Plan**

We offer long-term service protection for this new oven.

- Asure<sup>™</sup> Extended Service Plan is specially designed to supplement Amana's strong warranty. This plan covers parts, labor, and travel charges.
   Call 1-866-232-6244 for information.
- Dependability Plus™ Extended Service Plan is specially designed to supplement Maytag's and Jenn-Air's strong warranty. This plan covers parts, labor, and travel charges.

Call 1-800-925-2020 for information.

#### Radio Interference

- Microwave oven operation may interfere with the radio or TV reception.
- 2. When there is interference, it may be reduced or eliminated by taking the following measures:
  - Clean the door and the seal surface of the oven.
  - Reorient the receiving antenna of the radio or TV.
  - Relocate the microwave oven in relation to the radio or TV.
  - Move the microwave away from the receiver.
  - Plug the microwave into a different outlet so that the microwave and receiver are on different branch circuits.
- 120 VAC, 60 Hz household outlet. Be sure the circuit is at least 15 or 20 A and the microwave oven is the only appliance on the circuit. It is not designed for 50 Hz or any circuit other than a 120 VAC, 60 Hz circuit.
  - Electrical Rating of the Oven: 120 VAC, 60 Hz.

#### **Electrical Requirements**

The oven is designed to operate on a Standard 120 VAC, 60 HZ household outlet.

#### Cleaning

Before cleaning the oven, unplug the power supply cord. If impossible, open the oven door to prevent an accidental oven start.

#### Inside of the Oven

Use a damp cloth to wipe out crumbs and spillovers. It is important to keep the area between door and cavity front clean to assure a tight seal. Remove greasy spatters with a sudsy cloth, then rinse and dry. Do not use harsh detergent or abrasive cleaners.

#### **Glass Tray**

The glass tray can be washed by hand or in the dishwasher.

#### **Control Panel**

Wipe with a damp cloth followed immediately by a dry cloth. The Child Lock feature is also useful when cleaning the control panel. Child Lock prevents accidental programming when wiping the control panel (if so equipped).

#### Door

If steam accumulates inside or around the outside of the oven door, wipe the panel with a soft cloth. This may occur when the microwave oven is operated under high humidity conditions and in no way indicates a malfunction of the unit.

#### **Outside Oven Surface**

Clean with damp cloth. To prevent damage to the operating parts inside the oven, the water should not be allowed to seep into the ventilation openings.

After cleaning the oven, be sure that the rotating ring and the glass tray are in the right position. Press the STOP/CLEAR pad twice to reset any accidental key setting.

#### **Grounding Instructions**

This appliance must be grounded. If an electrical short circuit occurs, grounding reduces the risk of electric shock by providing an escape wire for the electric current. The cord for this appliance has a grounding wire with a grounding plug. Put the plug into an outlet that is properly installed and grounded.

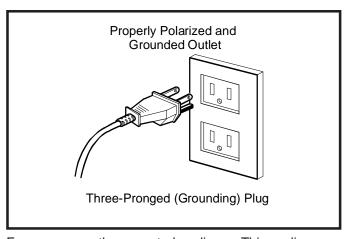


### WARNING

To avoid risk of electric shock, personal injury or death, use grounding plug properly.

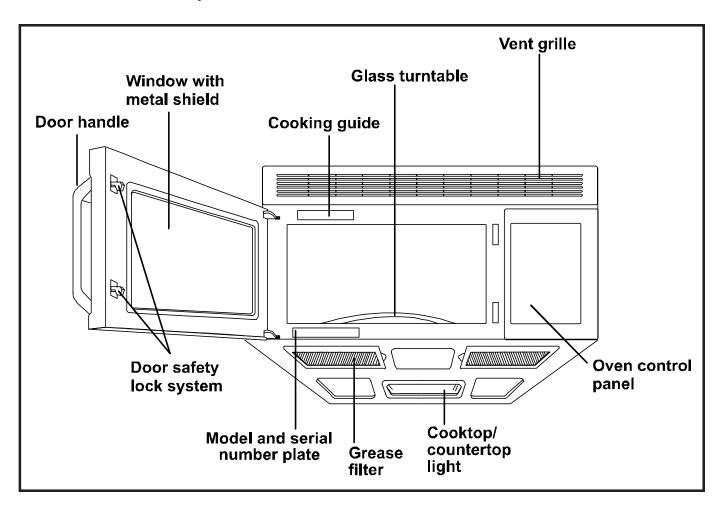
Ask a qualified electrician if you do not understand the grounding instructions or if you wonder whether the appliance is properly grounded.

Keep the electrical power cord dry and do not pinch or crush it in any way.



For a permanently connected appliance: This appliance must be connected to a grounded, metallic, permanent wiring system, or an equipment grounding conductor should be run with the circuit conductors and connected to the equipment grounding terminal or lead on the appliance.

### **Microwave Oven Description**



# **Troubleshooting Procedures**



### **WARNING**

To avoid risk of electrical shock, personal injury, or death, disconnect power to microwave oven and discharge the high-voltage capacitor before servicing, unless testing requires power.



## **CAUTION**

- · Verify proper grounding before checking for trouble.
- · Be careful of the high voltage circuit.
- · Discharge the high voltage capacitor.
- When checking the continuity of the switches or of the high voltage transformer, disconnect one lead wire from these parts and then check continuity with the AC plug removed. To do otherwise may result in a false reading or damage to your meter.
- Do not touch any part of the circuit on the printed circuit board, since static electric discharge may damage the
  control panel. Always touch yourself to ground while working on this panel to discharge any static charge built
  up in your body.

### **Troubleshooting Table**

Symptom		Cause	Correction
Microwave oven does not work, no	1.	Open or loose wire harness.	If thermal (magnetron) cutout is
display, fuse is OK.	2.	Open thermal (magnetron) cutout.	defective, check fan motor.
		Open low voltage transformer.	If low voltage transformer is
	4.	Defective PCB assembly.	defective, check PCB assembly.
Microwave oven does not work, no	1.	Open or loose wire harness.	Check adjustment of primary,
display, fuse is blown.	2.	Defective primary latch switch.*	interlock monitor and door
	3.	Defective monitor switch.*	sensing switches.
	4.	Shorted high voltage capacitor.*	Check power relay.
	5.	Shorted high voltage transformer.*	
*NOTES: If any primary, interlock m	onitor	or door sensing switches are defective	e, replace all at the same time.
If power relay contacts me	asure	e continuity, replace also.	
If high voltage transformer	is rep	placed, check diode and magnetron als	60.
Microwave oven does not accept	1.	Key input is not in-sequence.	Refer to operation instructions.
key input (touch pad input).	2.	Open or loose connection between	Check connection between key
		key pad and PCB assembly.	pad and PCB assembly.
	3.	Shorted or open key pad.	Replace key pad membrane.
	4.	Defective PCB assembly.	Replace PCB assembly.
Microwave oven timer operational,		Latch switches not aligned.	Adjust latch switches.
but microwave does not oscillate	2.	High voltage circuit loose connection	Check connections to high
(rotate).		(magnetron filament circuit).	voltage circuits (magnetron).
	3.	Defective high voltage components.	Check transformer, capacitor,
		Power relay wiring open or loose.	diode and magnetron fuse.
		Primary latch switch defective.	Check power relay wiring.
		Power relay or PCB assembly	Replace power relay or PCB
		defective.	assembly.
Microwave oven lamp and fan	1.	Primary latch switch misadjusted or	Adjust door and latch switches.
motor activate.		loose.	
	2.	Primary latch switch defective.	Replace all latch/door switches.
Microwave oven is programmable,	1.	Secondary interlock open or loose	Adjust door and latch switches.
but timer does not work.	,	wiring.	
		Primary interlock switch misadjusted.	Adjust door and latch switches.
	3.	Secondary interlock switch defective.	Replace all latch/door switches.
Microwave oven output is low;	1.	Decrease in power source voltage.	Home voltage fluctuations.
microwave oven takes a long time	2.	High voltage circuit loose connection	Check/replace magnetron.
to cook food.		(magnetron filament circuit).	
	3.	Magnetron aging.	Check/replace magnetron.

# **Troubleshooting Procedures**

# A

### **WARNING**

To avoid risk of electrical shock, personal injury, or death, disconnect power to microwave oven and discharge the high-voltage capacitor before servicing, unless testing requires power.

Symptom		Cause	Correction
Microwave oven fan motor	1.	Door sensing switch loose connector.	Check connector and wiring of
engages when power cord is	2.	Door sensing switch loose wires.	door sensing switch.
plugged in.			-
Microwave oven does not operate,	1.	Check input voltage.	Make sure house outlet works.
oven not in standby mode when	2.	Defective PCB assembly.	Replace PCB assembly.
power cord is plugged in.			
Microwave oven emitting a loud,	1.	Fan and/or fan motor loose.	Check fan and/or fan motor.
buzzing noise.	2.	High voltage transformer loose.	Check high voltage transformer.
	3.	High voltage diode shorted.	Replace high voltage diode.
Microwave oven turntable motor	1.	Turntable motor wiring loose/open.	Check wiring of turntable motor.
does not rotate.	2.	Defective turntable motor.	Replace turntable motor.
Microwave oven stops during	1.	Open or loose wiring of primary	Adjust door and latch switches.
cooking operation.		interlock switch.	Allow microwave oven to cool to
	2.	Open thermal (magnetron) cutout.	determine if magnetron TCO is
			defective. Replace if necessary.
Microwave oven emits sparks	1.	Metallic ware or cooking dishes	Do not use cookware with
when cooking.		touching on the oven wall.	metallic trimming or gold/silver
	2.	Ceramic ware trimmed with gold or	powder.
		silver powder.	
Microwave oven cooks unevenly.	1.	Uneven intensity of microwave due	Cover food with plastic wrap or
		to microwave characteristics.	cover food with a lid.
	2.	Microwave cavity dirty.	Clean microwave cavity.
Microwave oven turntable emits	1.	Turntable motor loose.	Tighten screws securing motor.
noise when operating.	2.	Turntable motor defective.	Replace turntable motor.

#### **Checkout Procedure: Fuse**

PROBLEM	CAUSE
Fuse blows immediately after door is closed.	Improper operation of the primary interlock and secondary
Fuse blows immediately after door is opened.	interlock switches and/or interlock monitor switch.
Fuse blows when door is closed and START	Malfunction of high voltage transformer; high voltage capacitor
key is touched.	including diode, magnetron, blower motor or circuit board.

#### NOTES: Replace blown fuse with 20 Amp fuse.

If the fuse is blown due to an improper switch operation, replace all interlock switches, PCB Ass'y and the fuse simultaneously, and ensure they are connected properly.

Check for microwave energy leakage after replacing interlock and monitor switches.

# **Troubleshooting Procedures**



## **WARNING**

To avoid risk of electrical shock, personal injury, or death, disconnect power to microwave oven and discharge the high-voltage capacitor before servicing, unless testing requires power.

#### **Error Code Table**

Error Code	Explanation	Possible Cause	
SE	Keypad shorted 10 seconds or longer.	Sticky keypad(s).	
·		Motor and/or heater unplugged, wiring or PCB assembly.	
E11	Gas sensor open error.	Sensor unplugged, wiring or PCB assembly.	
E12	Gas sensor short error.	Sensor unplugged, wiring or PCB assembly.	
E13	T1 Max time error (oven did not preheat properly).	PCB assembly.	
E21 Thermal sensor open error.  E22 Thermal sensor short error.  E23 PREHEAT did not reach preset temperature within 30 minutes. Preheat cycle canceled.		Sensor unplugged, wiring or PCB assembly.	
		Sensor unplugged, wiring or PCB assembly.	
		Convection heater or grill heater unplugged, wiring or PCB assembly.	
E24 Microwave temperature reaches 500° F (260° C) in overheat condition. Microwave cancels all functions.		Thermal or gas sensor, wiring or PCB assembly.	
E61 Sensor open error.		Sensor unplugged, wiring or PCB assembly.	
E62	Sensor shorted error.	Sensor shorted or PCB assembly.	
E63	T1 Max Time error.	PCB assembly.	



# **WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before servicing, unless testing requires power.

## **Component Testing Procedures**

Illustration	Component	Test Procedure	Results
	High voltage	Discharge Capacitor	
	transformer	Disconnect connector and measure	
		continuity with meter on R x 1 scale:	
25	120 V 3	Secondary	
	Secondary		Continuity.
	Primary	Primary (High & Low)	Less than 1 Ω.
		(Measure at room temp., or 70° F/ 22° C.)	
JMV9169BA*,	0 V Filament	Measure continuity with meter on "High"	Infinite Ω.
JMV8166BA*		scale: Primary winding to ground Filament winding to ground	Infinite $\Omega$ .
0111101100211	High voltage	Discharge Capacitor	minite 12.
<b>₽</b>	transformer	Disconnect connector and measure	
	transformer	continuity with meter on R x 1 scale:	
	—— <u> </u>	Secondary	Approx. 65-69 Ω.
355	120 V S Secondary	Filament	Continuity.
	Primary	Primary (High & Low)	Less than 1 Ω.
	Primary 3	(Measure at room temp., or 70° F/ 22° C.)	
	Filament	Measure continuity with meter on "High"	
AMV6167BD*	0 V 3 C	scale: Primary winding to ground	Infinite Ω.
7 1101 0 1 0 1 0 1		Filament winding to ground	Infinite Ω.
<u> </u>	High voltage	Discharge Capacitor	
	transformer	Disconnect connector and measure	
		continuity with meter on R x 1 scale:	
259	120 V 3	Secondary	Approx. 88-92 Ω.
	Secondary		
	Primary	Primary (High & Low)	Less than 1 Ω.
	] ~	(Measure at room temp., or 70° F/ 22° C.)	
MMV5207B**,	0 V Filament	Measure continuity with meter on "High"	Infinite O
JMV8208B**,		scale: Primary winding to ground	Infinite Ω. Infinite Ω.
MMV4205BA*		Filament winding to ground	minime 12.
	High voltage	Discharge Capacitor	
	transformer	Disconnect connector and measure	
		continuity with meter on R x 1 scale:	
	120 V	Secondary	Approx. 67-72 Ω.
	Secondary	Filament	Continuity.
	Primary	Primary (High & Low)	Less than 1 Ω.
		(Measure at room temp., or 70° F/ 22° C.)	
	0 V Filament	Measure continuity with meter on "High"	Infinite O
AMV5164BC*		scale: Primary winding to ground	Infinite Ω. Infinite Ω.
	High voltage	Filament winding to ground  Discharge Capacitor	minute 12.
	High voltage transformer	Disconnect connector and measure	
	tiansionnel	continuity with meter on R x 1 scale:	
	—— <u>~</u>	Secondary	Approx. 100-104 Ω.
	120 V Secondary		Continuity.
	Primary	Primary	Less than 1 Ω.
	rimary 3	(Measure at room temp, or 70° F/ 22° C.)	
•	Filament	Measure continuity with meter on "High"	
AMV5164BA*,	0 V 3    C	scale: Primary winding to ground	Infinite Ω.
MMV5165BA*,		Filament winding to ground	Infinite Ω.
AMV1154BA*,			
MMV1153BA*, UMV1152CA*			
OIVIV I IOZUA	Lamp receptacle	Test continuity of receptacle terminals	Continuity when known good bulb is
	Lamp receptacie	rest continuity of receptable terminals	inserted.
(6)			
L			

# A

## **WARNING**

Illustration	Component	Test Procedure		Results	
&>	Low voltage	Remove low voltage transformer from control			
	transformer	circuit board and check:			
		(Measure at room temp., or 68° F/20° C.)			
29		Between pins 1 and 2 (Input)	Approx. 128 Ω		
		Between pins 4 and 5 (19v output)	Approx. 2 Ω		
		Between pins 6 and 7 (7.0v output)	Approx. 2 Ω		
*		Between pins 7 and 8 (2.7v output)	Approx. 5 Ω		
₩	Low voltage	Remove low voltage transformer from control			
	transformer	circuit board and check:			
55	AMV5164BC*, MMV5165BA*	(Measure at room temp., or 68° F/20° C.)  Between pins 1 and 2 (Input)	Approx. 243 Ω		
	IVIIVIVOTOODA	Between pins 4 and 5 (19v output)	Approx. 243 Ω		
		Between pins 7 and 8 (2.7v output)	Approx. 2 Ω		
~		` ` ` '	7 (pp. 07.: 2 11.:		
	Low voltage	Remove low voltage transformer from control			
	transformer	circuit board and check:			
55	AMV5164BA*,   AMV1154BA*,	(Measure at room temp., or 68° F/20° C.)  Between pins 1 and 2 (Input)	Approx. 379 Ω		
	MMV1153BA*,	Between pins 4 and 5 (19v output)	Approx. 37 9 Ω		
	UMV1152CA*	Between pins 7 and 8 (2.7v output)	Approx. 2 Ω		
~		, , , ,			
	Magnetron	Discharge Capacitor	Between Termin		-
		Demove wires from magnetren and connect	Each Terminal to NOTE: This test		
		Remove wires from magnetron and connect ohmmeter to terminals. Also check between	microwave oven		
		each terminal and ground.	other component		
		caon terminar and ground.	magnetron and r		replace the
40/	18 1 1/ 16	D: 1 0 1			
	High Voltage	Discharge Capacitor	<b>Between Terminals:</b> Meter should momentarily indicate continuity, then 9		
	Capacitor	Remove wires from capacitor terminals and connect ohmmeter, set on highest resistance	$M\Omega$ (deflection).		•
		scale to terminals.	an open capacito		
		sould to terminale.	indicates a short		
		Check resistance between each terminal and	case, replace ca		
		capacitor case	Infinite Ω.		
	High Voltage Diode	Discharge Capacitor			
			Infinite resistance		
		Remove diode lead from capacitor and	one direction and		ndred KΩ in
		connect ohmmeter.	the opposite dire	ction.	
		Deverse leads for assent test	NOTE: Ohmmete		ain a battery
	Power Control Relay	Reverse leads for second test.  Disconnect the leads. Place water in the	of 6 volts minimu		Cycle Off
	Fower Control Relay	microwave oven and select power levels 1	Power Level	Cycle On (Continuity)	Cycle Off (Open)
		through 10. Press the <b>START</b> pad. Check	1	4 sec	26 sec
		continuity between the terminals of the relays	2	7 sec	23 sec
			3	10 sec	20 sec
	ا ا		4	13 sec	17 sec
	T		5	16 sec	14 sec
			6	19 sec	11 sec
			7	22 sec	8 sec
			8	25 sec	5 sec
			9	28 sec	2 sec
			10	30 sec	0 sec
	Outill be a dear of a second	Damana all mines from the star			
	Grill heater element	Remove all wires from heater.	Approx 15 25 0	(70° E 20° 4	2)
	JMV9169BA*, JMV8166BA*,	Measure resistance across terminals	Approx. 15-25 Ω	(10 F, 20°)	٠).
	AMV6167BD*				
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# A

## **WARNING**

Illustration	Component	Test Procedure	Results
	Convection heater element JMV9169BA*, JMV8166BA*, AMV6167BD*		Approx. 15-25 Ω (70° F, 20° C).
	Convection motor JMV9169BA*, JMV8166BA*, AMV6167BD*	Remove all wires from motor.  Measure resistance across coil	Approx. 14.5 - 17 Ω.
	Primary interlock switch test (Bottom switch)	Measure resistance between terminals 1 and 2: Door Open	Open (Infinite). Continuity.
	Secondary interlock switch test (Top switch)	Measure resistance between terminals 1 and 2: Door Open	Open (Infinite). Continuity.
	Interlock monitor switch test (Middle switch)	Measure resistance between terminals 1 and 2: Door Open	Continuity. Open (Infinite).
	Fan motor MMV4205BA*, AMV5206BA*, MMV5207BA, JMV8208B**, JMV9169BA*, JMV8166BA*, AMV6167BD*	Remove all wires from motor.  Measure resistance	Approx. $28$ - $35~\Omega$ . Infinite or several, motor is defective.
	Stirrer Motor UMV1152CA*, AMV1154BA*, AMV5164BA*, MMV1153BA*, MMV5165BA*	Measure voltage across terminals Measure resistance across terminals	Approx. 120 VAC. Approx. 3 to 4 $\Omega$ .
	Stirrer Motor	Measure voltage across terminals	Approx. 120 VAC. Approx. 108 to 132 kΩ.
	Turntable Motor UMV1152CA*, AMV1154BA*, AMV5164BA*, MMV1153BA*, MMV5165BA*	Measure voltage across terminals  Measure resistance across terminals	Approx. 3 to 4 $\Omega$ .
	Turntable Motor	Measure voltage across terminals	Approx. 120 VAC. Approx. 108 to 132 kΩ.
	Damper Motor JMV9169BA*, JMV8166BA*, AMV6167BD*	Measure voltage across terminals	Approx. 120 VAC. Approx. 3 to 4 $k\Omega$ .
	Louvre Motor JMV8208B**, JMV9169BA*, JMV8166BA*, AMV6167BD*	Measure voltage across terminals Measure resistance across terminals	Approx. 120 VAC. Approx. 3100 to 3900 kΩ.

# A

## **WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before servicing, unless testing requires power.

Illustration	Component	Test Procedure	Results
	Ventilation Motor  JMV8166BA*, AMV6167BD*	Discharge Capacitor Remove two wires to run capacitor and measure resistance across the wires	. Approx. 75 Ω. (Tests all 3 windings.)
	Ventilation Motor JMV9169BA*	Discharge Capacitor Remove two wires to run capacitor and measure resistance across the wires	Approx. 25 Ω. (Tests all 3 windings.)
	Vent Blower Motor (run) Capacitor	Discharge Capacitor  Remove one wire from capacitor terminals and connect ohmmeter. Set on highest resistance scale.	Between Terminals: Meter should momentarily indicate several ohms, then return to infinity (deflection). If no deflection occurs, or if continuous deflection occurs, replace capacitor. Terminal to Case: Infinite resistance.
	Cavity (Flame Sensor) Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO. Measure resistance across terminals	Non-resetable. Open: 212° F (100° C).
	Cavity (Flame Sensor) Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO. Measure resistance across terminals	Resetable.  Open: 302° F (150° C).  Closed: 140° F (60° C).
	Cavity (Flame Sensor) Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO. Measure resistance across terminals	Non-resetable. Open: 248° F (120° C).
	Magnetron Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO. Measure resistance across terminals	Resetable.  Open: 302° F (150° C).  Closed: 140° F (60° C).
	Hood Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO. Measure resistance across terminals  NOTE: This TCO only works in an overheat condition. Otherwise, it will measure "open" when testing.	Resetable.  Open: 158° F (70° C). Vent fan engaged.  Closed: 104° F (40° C). Vent fan disengaged.
	Bottom Thermal Cut-Out (Thermostat)	Disconnect all wires from TCO.  Measure resistance across terminals	Non–resetable. Open: 248° F (120° C).
	Sensor	Remove the red and black wires, connect meter to red and black wires and measure continuity	. 30 Ω.

### **Control Panel Sensor Test**

Illustration	Component	Test Procedure	Results
	Sensor Test	Apply power to microwave for 5 minutes. Press AUTO DEFROST and REHEAT pads simultaneously and monitor display for V-Out value	Less than 6 Sensor failure. 15 to 185 Normal. More than 213 Sensor failure.
1 2 3	Sensor Test AMV5164B**, MMV5165BA*	Apply power to microwave for 5 minutes. Press AUTO DEFROST and REHEAT pads simultaneously and monitor display for V-Out value	Less than 10 Sensor failure. 10 to 150 Normal. More than 150 Sensor failure.



### **WARNING**

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### **Power Test (Traditional Test Method)**

Test equipment required is Amana power test kit R0157397 (Fahrenheit), or Menumaster power test kit M95D5 (Celsius).

- 1. Fill the plastic container to the 1000 ml. line with cool tap water.
- 2. Using the thermometer; stir the water, measure, and record the water temperature. Initial water temperature should be approximately 60° F (16° C).
- 3. Place container on the center of the oven shelf and heat the water for 33 seconds for ovens with more than 1550 watts or 63 seconds for ovens with less than 1550 watts.

Use a watch second hand, not the oven timer.

- 4. Stir the water, measure and record the temperature of the water after heating time is complete.
- 5. Subtract the starting water temperature (Step 2), from the ending water temperature (Step 4) to obtain the temperature rise ( $\Delta T$ ).
- 6. See the Traditional Power Test Temperature Chart below.

NOTES: • The IEC-705 test method requires precision measurements and equipment. It is not practical to perform the IEC test in the field. To convert the traditional power test results to the approximate IEC-705 rating, take the traditional power test results and add 100 watts per magnetron for the unit being tested.

> **Example:** 850 watts output using the traditional power test

> > watts (1 magnetron X 100 watts) + 100

950 Approximate IEC-705 results

- Always perform power test three times for accuracy, changing the water after each test is performed.
- Variation or errors in the test procedure will cause a variance in the temperature rise. Additional power tests should be made if temperature rise appears marginal.
- Low line voltage will cause lower temperature rise.

### Traditional Power Test Temperature Chart

SIXTY-THREE (63) SECONDS run time chart for units less than 1550 watts cooking power

#### **Fahrenheit Celsius**

∆T (° F)	Cooking Power Output	∆T (° F)	Cooking Power Output	∆T (° C)	Cooking Power Output	∆T (° C)	Cooking Power Output
16	620	23	891	7	490	15	1050
17	659	24	930	8	560	16	1120
18	697	25	969	9	630	17	1190
19	736	26	1007	10	700	18	1260
20	775	27	1046	11	770	19	1330
21	814	28	1085	12	840	20	1400
22	852	29	1124	13	910	21	1470
				14	980	22	1540

# A

## **WARNING**

Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	<u>Pad</u>	Trace	Measurement
Panel	Pad/Control Panel is	1	2 & 12	Continuity
	required to perform test.	2	3 & 12	Continuity
	Check for continuity.	3	4 & 12	Continuity
	•	4	5 & 12	Continuity
UMV1152CA*	When touched: Less than	5	6 & 12	Continuity
	400 Ω.	6	1 & 13	Continuity
	When not touched: More	7	2 & 13	Continuity
	than 1 mega Ω.	8	3 & 13	Continuity
	_	9	4 & 13	Continuity
		0	1 & 12	Continuity
		Enter/Start	1 & 9	Continuity
		Add 30 Seconds	2 & 9	Continuity
		Popcorn	3 & 9	Continuity
		Baked Potato	4 & 9	Continuity
		Vent Hi/Lo/Off	6 & 9	Continuity
		Reheat	2 & 10	Continuity
		Auto Defrost	3 & 10	Continuity
		Power Level	4 & 10	Continuity
		Light Hi/Lo/Off	6 & 10	Continuity
		Stop Clear	1 & 11	Continuity
		Clock	2 & 11	Continuity
		Kitchen Timer	3 & 11	Continuity
		Sound On/Off	4 & 11	Continuity
		Vegetables	6 & 11	Continuity
		Cook	5 & 13	Continuity
		Pizza Slice	6 & 13	Continuity
Touch Pad/Control	Removal of Touch	<u>Pad</u>	Trace	Measurement
Panel	Pad/Control Panel is	1	2 & 12	Continuity
	required to perform test.	2	3 & 12	Continuity
	Check for continuity.	3	4 & 12	Continuity
1/11/11/44/FOD A+	M/leas to colonial Lagarithan	4	5 & 12	Continuity
MMV1153BA*	When touched: Less than	5	6 & 12	Continuity
	400 Ω.	6	1 & 13	Continuity
	When not touched: More than 1 mega $\Omega$ .	7 8	2 & 13 3 & 13	Continuity
	than i mega 12.	9	4 & 13	Continuity Continuity
		0	1 & 12	Continuity
		Enter/Start	1 & 9	Continuity
		Add 30 Seconds	2 & 9	Continuity
		Popcorn	3 & 9	Continuity
		Baked Potato	4 & 9	Continuity
		Vent Hi/Lo/Off	6 & 9	Continuity
		Reheat	2 & 10	Continuity
		Auto Defrost	3 & 10	Continuity
		Power Level	4 & 10	Continuity
		Light Hi/Lo/Off	6 & 10	Continuity
		Stop Clear	1 & 11	Continuity
		Clock	2 & 11	Continuity
		Kitchen Timer	3 & 11	Continuity
		Sound On/Off	4 & 11	Continuity
		Vegetables	6 & 11	Continuity
		Cook	5 & 13	Continuity
1		Pizza Slice	6 & 13	Continuity
		1 1224 01106	1 0010	Continuity

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# **WARNING**

Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	Pad	Trace	Measurement
Panel	Pad/Control Panel is	1	2 & 12	Continuity
	required to perform test.	2	3 & 12	Continuity
	Check for continuity.	3	4 & 12	Continuity
		4	5 & 12	Continuity
AMV1154BA*	When touched: Less than	5	6 & 12	Continuity
7	400 Ω.	6	1 & 13	Continuity
	When not touched: More	7	2 & 13	Continuity
	than 1 mega Ω.	8	3 & 13	Continuity
	and Timoga 12.	9	4 & 13	Continuity
		0	1 & 12	Continuity
		Enter/Start	1 & 9	Continuity
		Add 30 Seconds	2 & 9	Continuity
		Popcorn	3 & 9	Continuity
		Baked Potato	4 & 9	Continuity
		Vent Hi/Lo/Off	6 & 9	Continuity
		Reheat	2 & 10	Continuity
		Auto Defrost	3 & 10	Continuity
		Power Level	4 & 10	Continuity
		Light Hi/Lo/Off	6 & 10	Continuity
		Stop Clear	1 & 11	Continuity
		Clock	2 & 11	Continuity
		Kitchen Timer	3 & 11	Continuity
		Sound On/Off	4 & 11	Continuity
		Vegetables	6 & 11	Continuity
		Cook	5 & 13	Continuity
		Pizza Slice	6 & 13	Continuity
Touch Pad/Control	Removal of Touch	Pad Pad	Trace	Measurement
Panel	Pad/Control Panel is	1 1	8 & 16	Continuity
1 dilei	required to perform test.	2	7 & 16	Continuity
	Check for continuity.	3	6 & 16	Continuity
	Check for continuity.	4	5 & 16	Continuity
AMV5164BA*	When touched: Less than	5	4 & 16	Continuity
AMVOTOTBA	400 Ω.	6	3 & 16	Continuity
	When not touched: More	7	9 & 15	Continuity
	than 1 mega $\Omega$ .	8	8 & 15	Continuity
	than Thioga 12.	9	7 & 15	Continuity
		o o	9 & 16	Continuity
		Vegetables	8 & 10	Continuity
		Cook	9 & 10	Continuity
		Pizza Slice	3 & 11	Continuity
		Option	2 & 10	Continuity
		Baked Potato	6 & 12	Continuity
		Popcorn	7 & 12	Continuity
		Light Hi/Lo/Off	8 & 12	Continuity
		1 Pound Defrost	9 & 12	Continuity
		Add 30 Seconds	4 & 13	Continuity
		Reheat	5 & 13	Continuity
		Light Timer	6 & 13	Continuity
		Control Setup	7 & 13	Continuity
		Turntable On/Off	8 & 13	Continuity
		Kitchen Timer	9 & 13	Continuity
		Custom Program	3 & 14	Continuity
		Auto Defrost	4 & 14	Continuity
		Enter/Start	5 & 14	Continuity
		Clock	9 & 14	Continuity
		Power Level	3 & 15	Continuity
		Stop/Clear	4 & 15	Continuity
		Vent Hi/Lo/Off	6 & 15	Continuity

# A

## **WARNING**

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Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	Pad	Trace	Measurement
Panel	Pad/Control Panel is	1	8 & 16	Continuity
	required to perform test.	2	7 & 16	Continuity
	Check for continuity.	3	6 & 16	Continuity
		4	5 & 16	Continuity
MMV5165BA*	When touched: Less than	5	4 & 16	Continuity
	400 Ω.	6	3 & 16	Continuity
	When not touched: More	7	9 & 15	Continuity
	than 1 mega Ω.	8	8 & 15	Continuity
		9	7 & 15	Continuity
		0	9 & 16	Continuity
		5 Speed	3 & 10	Continuity
		On/Off	4 & 10	Continuity
		Vegetables	8 & 10	Continuity
		Cook	9 & 10	Continuity
		Option	2 & 11	Continuity
		Pizza Slice	3 & 11	Continuity
		Baked Potato	6 & 12	Continuity
		Popcorn	7 & 12	Continuity
		Light Hi/Lo/Off	8 & 12	Continuity
		1 Pound Defrost	9 & 12	Continuity
		Delay Off	3 & 13	Continuity
		Add 30 Seconds	4 & 13	Continuity
		Reheat	5 & 13	Continuity
		Light Timer	6 & 13	Continuity
		Control Setup	7 & 13	Continuity
		Kitchen Timer	9 & 13	Continuity
		Custom Program	3 & 14	Continuity
		Auto Defrost	4 & 14	Continuity
		Enter/Start	5 & 14	Continuity
		Clock	9 & 14	Continuity
		Power Level	3 & 15	Continuity
		Stop Clear	4 & 15	Continuity

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# **WARNING**

Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	Measurement
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
		4	3 & 15	Continuity
MMV4205BA*	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
		9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		Beverage	3 & 11	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Turntable On/Off	6 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5 & 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity
		Vent Hi/Lo/Off	4 & 14	Continuity
		Option	9 & 14	Continuity

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## **WARNING**

Component	Test Procedure	Results		
Touch Pad/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	Measurement
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2 3	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
AMV5206BA*		4	3 & 15	Continuity
	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
		9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		5 Speed	6 & 10	Continuity
		On/Off	7 & 10	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Option	9 & 11	Continuity
		Delay Off	1 & 12	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Turntable On/Off	6 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5 & 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity

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# **WARNING**

Component	Test Procedure	Res	ults	
Touch Pad/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	Measurement
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
MMV5207BA*		4	3 & 15	Continuity
	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
		9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		5 Speed	6 & 10	Continuity
		On/Off	7 & 10	Continuity
		Option	9 & 10	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Delay Off	1 & 12	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5 & 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity

# A

## **WARNING**

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Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	<u>Measurement</u>
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
		4	3 & 15	Continuity
JMV8208BA*	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
	_	9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		5 Speed	6 & 10	Continuity
		On/Off	7 & 10	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Delay Off	1 & 12	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Option	9 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5& 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity

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# **WARNING**

Component	Test Procedure		Results	
Touch Panel/Control Panel	Removal of Touch	<u>Pad</u>	<u>Trace</u>	<u>Measurement</u>
Touch Panel/Control Panel	Pad/Control Panel is	0	5 & 13	Continuity
	required to perform	1	6 & 12	Continuity
	test.	2 3	5 & 12	Continuity
AMV6167BD*			4 & 12	Continuity
	Check for continuity.	4	3 & 12	Continuity
		5	2 & 12	Continuity
	When touched:	6	9 & 13	Continuity
	Less than 400 Ω.	7	8 & 13	Continuity
		8	7 & 13	Continuity
	When not touched:	9	6 & 13	Continuity
	More than 1 mega $Ω$ .	Control Setup	2 & 10	Continuity
		Pizza Slice	3 & 10	Continuity
		Baked Potato	4 & 10	Continuity
		Popcorn	5 & 10	Continuity
		Combination Cooking	6 & 10	Continuity
		Convection	8 & 10	Continuity
		Clock	2 & 11	Continuity
		Micro. Convection	4 & 11	Continuity
		Auto Cook	6 & 11	Continuity
		Auto Defrost	7 & 11	Continuity
		Reheat	8 & 11	Continuity
		Sensor Cook	9 & 11	Continuity
		Option	1 & 12	Continuity
		Snacks	8 & 12	Continuity
		Soften/Melt	9 & 12	Continuity
		Stop/Clear	2 & 13	Continuity
		Enter/Start	3 & 13	Continuity
		Power Level	4 & 13	Continuity
		Kitchen Timer	2 & 14	Continuity
		Delay Off	3 & 14	Continuity
		5 Speed	4 & 14	Continuity
		On/Off	5 & 14	Continuity
		Light Timer	6 & 14	Continuity
		Light Hi/Lo/Off	7 & 14	Continuity
		Turntable On/Off	8 & 14	Continuity
		Add 30 Seconds	9 & 14	Continuity

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## **WARNING**

Component	Test Procedure		Results	
Tarrela Barral/Operatori	Removal of Touch	<u>Pad</u>	<u>Trace</u>	<u>Measurement</u>
Touch Panel/Control	Pad/Control Panel is	0	5 & 13	Continuity
Panel	required to perform	1	6 & 12	Continuity
	test.	2	5 & 12	Continuity
		3	4 & 12	Continuity
JMV8166BA*	Check for continuity.	4	3 & 12	Continuity
		5	2 & 12	Continuity
	When touched:	6	9 & 13	Continuity
	Less than 400 Ω.	7	8 & 13	Continuity
		8	7 & 13	Continuity
	When not touched:	9	6 & 13	Continuity
	More than 1 mega $\Omega$ .	Control Setup	2 & 10	Continuity
	_	Pizza Slice	3 & 10	Continuity
		Baked Potato	4 & 10	Continuity
		Popcorn	5 & 10	Continuity
		Combination Cooking	6 & 10	Continuity
		Convection	8 & 10	Continuity
		Clock	2 & 11	Continuity
		Micro. Convection	4 & 11	Continuity
		Auto Cook	6 & 11	Continuity
		Auto Defrost	7 & 11	Continuity
		Reheat	8 & 11	Continuity
		Sensor Cook	9 & 11	Continuity
		Option	1 & 11	Continuity
		Snacks	8 & 12	Continuity
		Soften/Melt	9 & 12	Continuity
		Stop/Clear	2 & 13	Continuity
		Enter/Start	3 & 13	Continuity
		Power Level	4 & 13	Continuity
		Kitchen Timer	2 & 14	Continuity
		Delay Off	3 & 14	Continuity
		5 Speed	4 & 14	Continuity
		On/Off	5 & 14	Continuity
		Light Timer	6 & 14	Continuity
		Light Hi/Lo/Off	7 & 14	Continuity
		Turntable On/Off	8 & 14	Continuity
		Add 30 Seconds	9 & 14	Continuity

# A

## **WARNING**

Component	Test Procedure		Results	
Touch Panel/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	Measurement
	Pad/Control Panel is	0	5 & 13	Continuity
Panel	required to perform test.	1	6 & 12	Continuity
		2	5 & 12	Continuity
	Check for continuity.	3	4 & 12	Continuity
JMV9169BA*		4	3 & 12	Continuity
	When touched:	5	2 & 12	Continuity
	Less than 400 Ω.	6	9 & 13	Continuity
		7	8 & 13	Continuity
	When not touched:	8	7 & 13	Continuity
	More than 1 mega Ω.	9	6 & 13	Continuity
		Control Setup	2 & 10	Continuity
		Pizza Slice	3 & 10	Continuity
		Baked Potato	4 & 10	Continuity
		Popcorn	5 & 10	Continuity
		Combination Cooking	6 & 10	Continuity
		Broil	7 & 10	Continuity
		Convection	8 & 10	Continuity
		Clock	2 & 11	Continuity
		Auto Broil	3 & 11	Continuity
		Micro. Convection	4 & 11	Continuity
		Auto Cook	6 & 11	Continuity
		Auto Defrost	7 & 11	Continuity
		Reheat	8 & 11	Continuity
		Sensor Cook	9 & 11	Continuity
		Snacks	8 & 12	Continuity
		Soften/Melt	9 & 12	Continuity
		Stop/Clear	2 & 13	Continuity
		Enter/Start	3 & 13	Continuity
		Power Level	4 & 13	Continuity
		Kitchen Timer	2 & 14	Continuity
		Delay Off	3 & 14	Continuity
		5 Speed	4 & 14	Continuity
		On/Off	5 & 14	Continuity
		Light Timer	6 & 14	Continuity
		Light Hi/Lo/Off	7 & 14	Continuity
		Turntable On/Off	8 & 14	Continuity
		Add 30 Seconds	9 & 14	Continuity

# A

## **WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before servicing, unless testing requires power.

Component	Test Procedure		Results	
Touch Pad/Control	Removal of Touch	<u>Pad</u>	Trace	Measurement
Panel	Pad/Control Panel is	1	8 & 16	Continuity
	required to perform test.	2 3	7 & 16	Continuity
	Check for continuity.	3	6 & 16	Continuity
		4	5 & 16	Continuity
AMV5164BC*	When touched: Less than	5	4 & 16	Continuity
	400 Ω.	6	3 & 16	Continuity
	When not touched: More	7	9 & 15	Continuity
	than 1 mega Ω.	8	8 & 15	Continuity
		9	7 & 15	Continuity
		0	9 & 16	Continuity
		Vegetables	8 & 10	Continuity
		Cook	9 & 10	Continuity
		Pizza Slice	3 & 11	Continuity
		Option	2 & 12	Continuity
		Baked Potato	6 & 12	Continuity
		Popcorn	7 & 12	Continuity
		Light Hi/Lo/Off	8 & 12	Continuity
		1 Pound Defrost	9 & 12	Continuity
		Add 30 Seconds	4 & 13	Continuity
		Reheat	5 & 13	Continuity
		Light Timer	6 & 13	Continuity
		Control Setup	7 & 13	Continuity
		Turntable On/Off	8 & 13	Continuity
		Kitchen Timer	9 & 13	Continuity
		Custom Program	3 & 14	Continuity
		Auto Defrost	4 & 14	Continuity
		Enter/Start	5 & 14	Continuity
		Clock	9 & 14	Continuity
		Power Level	3 & 15	Continuity
		Stop/Clear	4 & 15	Continuity
		Vent Hi/Lo/Off	6 & 15	Continuity

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# A

# **WARNING**

Component	Test Procedure	Results		
Touch Pad/Control	Removal of Touch	<u>Pad</u>	<u>Trace</u>	Measurement
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
		4	3 & 15	Continuity
MMV5207BC*	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
		9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		5 Speed	6 & 10	Continuity
		On/Off	7 & 10	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Delay Off	1 & 12	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5& 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Option	9 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity

# A

## **WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before servicing, unless testing requires power.

Component	Test Procedure	Results		
Touch Pad/Control	Removal of Touch	Pad	Trace	<u>Measurement</u>
Panel	Pad/Control Panel is	1	6 & 15	Continuity
	required to perform test.	2	5 & 15	Continuity
	Check for continuity.	3	4 & 15	Continuity
		4	3 & 15	Continuity
JMV8208BC*	When touched: Less than	5	2 & 15	Continuity
	400 Ω.	6	1 & 15	Continuity
	When not touched: More	7	7 & 14	Continuity
	than 1 mega Ω.	8	6 & 14	Continuity
		9	5 & 14	Continuity
		0	7 & 15	Continuity
		Pizza Slice	1 & 10	Continuity
		Vegetables	2 & 10	Continuity
		Cook	3 & 10	Continuity
		5 Speed	6 & 10	Continuity
		On/Off	7 & 10	Continuity
		Baked Potato	4 & 11	Continuity
		Popcorn	5 & 11	Continuity
		Light Hi/Lo/Off	6 & 11	Continuity
		1 Pound Defrost	7 & 11	Continuity
		Delay Off	1 & 12	Continuity
		Add 30 Seconds	2 & 12	Continuity
		Reheat	3 & 12	Continuity
		Light Timer	4 & 12	Continuity
		Control Setup	5 & 12	Continuity
		Kitchen Timer	7 & 12	Continuity
		Custom Program	1 & 13	Continuity
		Auto Defrost	2 & 13	Continuity
		Enter Start	3 & 13	Continuity
		Snacks	4 & 13	Continuity
		Kids Meals	5& 13	Continuity
		Soften/Melt	6 & 13	Continuity
		Clock	7 & 13	Continuity
		Power Level	1 & 14	Continuity
		Stop/Clear	2 & 14	Continuity
		Option	9 & 15	Continuity

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### WARNING

High voltage is present at the high voltage terminal of the high voltage transformer during any cooking cycle.

It is neither necessary or advisable to attempt measurement of the high voltage.

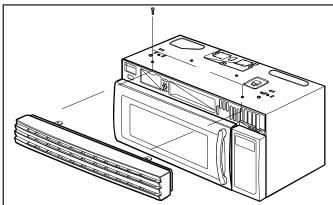
Before touching any oven components or wiring, always unplug the oven from its power source and discharge capacitor.

#### **Grille Removal**

The top full-width grille is removable for service to some components, such as: humidity sensor, oven light, door removal, flame sensor, vent motor capacitor, fuse, control panel, and stirrer motor (some models).

#### **Grille Removal**

- 1. Disconnect power to oven.
- 2. Remove screws located in front on top of microwave securing grille.



- 3. Pull outward on the top portion of the grille releasing the tabs.
- 4. Reassemble in reverse order.

### **Door Assembly Removal**



### CAUTION

A microwave leakage test must be performed anytime a door assembly is removed, replaced, disassembled or adjusted for any reason.

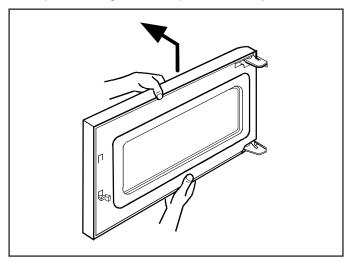
#### **Door Removal**

- 1. Disconnect power to oven and remove grille, see "Grille Removal" procedure.
- 2. Open the oven door, slowly raise the door evenly, disengaging the pins at the top and bottom.

**NOTE:** When aligning the door for assembly, the door must be opened as much as possible.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

- 3. To place door back on unit, place bottom pin into hole first and then align the top pin. Once pins are aligned push door downward to lock into place.
- 4. Replace front grille to complete assembly.



#### **Door Disassembly**

- 1. Disconnect power to oven and remove oven door, see "Door Removal" procedure.
- 2. Pry away choke cover, by placing a tool in the upper right corner of the door and gently prying outward on the choke cover. Continue to work around the door casing until choke cover is completely loose.



#### CAUTION

To avoid property damage, care must be taken when prying choke cover from oven door.

- Slide latch assembly upward and to the left to release plastic tabs from door frame. Once latch assembly is loose the spring may be disconnected from the door frame.
- 4. Remove screws securing door frame assembly to door panel.
- 5. Remove door frame assembly by releasing tabs around entire door panel.
- 6. Remove door handle by removing screws securing handle to door panel.

NOTE: The door handle can only be reinstalled by guiding the top and bottom insertion points into the correct receiving slots. It is impossible to reinstall the door handle "upside-down."

- Remove door glass by releasing tab securing door glass baffle. Remove baffle, then slide door glass to the right slightly, then push the door glass upward to release the glass from the track.
- 8. Reassemble in reverse order.

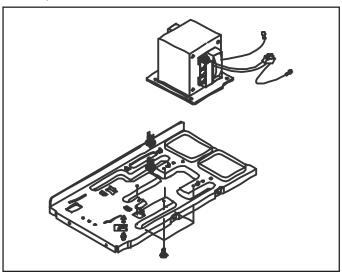


#### WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

#### **Printed Circuit Board Removal**

The circuit board is located at the top on back of the control panel.



# A

### **CAUTION**

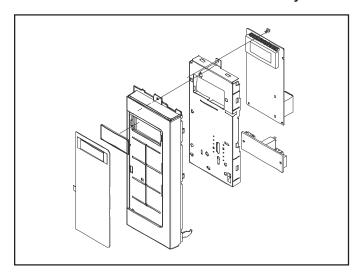
A microwave leakage test must be performed anytime a door assembly is removed, replaced, disassembled, or adjusted for any reason.

#### **Control Panel Removal**

The control panel is made up of several components, such as a printed circuit board and touch panel.

- 1. Disconnect oven power and remove grille, see "Grille Removal" procedure.
- Remove screw located at the top of touch panel. Lift control panel up and out to release bottom tab connections.
- 3. Place control panel on a flat surface.
- 4. Reassemble in reverse order.

#### **Control Panel/Switch Membrane Disassembly**



#### P.C. Board Removal

- Disconnect oven power and remove grille, see "Grille Removal" procedure.
- Remove control panel, see "Control Panel Removal" procedure.
- 3. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 4. Disconnect ribbon connector by sliding top part of connector upward. Once in released position remove ribbon from connector by siding ribbon side-to-side.

**NOTE:** Caution should be used when removing cable from connector. Ribbon cable has two holes which connector locks ribbon in place.

- 5. Disconnect and mark the wire connectors from circuit board.
- 6. Remove screws securing circuit board to control panel assembly.
- 7. Reassemble in reverse order.

NOTE: Do not flex circuit board.

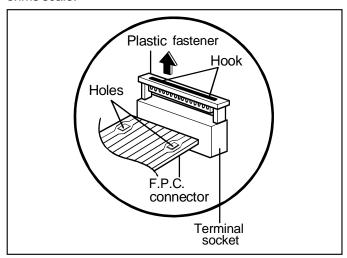
### A

### WARNING

### **Control Key Panel Removal**

The key panel has one ribbon connection on the circuit board.

The key panel pads can be checked through a continuity test. Operations of key pad can be checked by measuring connections at end of ribbon, using high ohms scale.



#### **Control Key Panel Removal**

- 1. Disconnect power to microwave oven.
- Remove control panel, see "Control Panel Removal" procedure.
- 3. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 4. Disconnect ribbon connector by sliding top part of connector upward. Once in released position remove ribbon from connector by sliding ribbon side-to-side.

**NOTE:** Caution should be used when removing cable from connector. Ribbon cable has two holes which connector locks ribbon in place.

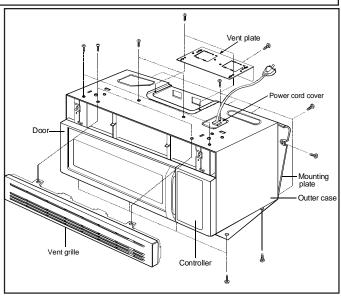
- 5. Peel failed key pad off and replace with new key pad.
- 6. Reassemble in reverse order.

#### **Outer Case Removal**

**NOTE:** This procedure requires removal of unit.

- 1. Disconnect power to oven and remove grille, see "Grille Removal" procedure.
- 2. Remove oven door see "Door Removal" procedure.
- 3. Remove screws securing air duct to outer case.
- 4. Remove screws securing outer case to chassis.
- 5. Remove screws securing vent plate to outer case.
- 6. Remove screw securing power cord cover to outer case and remove power cord cover (if equipped).
- 7. Slide outer case towards the rear of the unit, guide power cord though outer case power cord hole.
- 8. Place outer case in a safe location.
- 9. Reassemble in reverse order.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

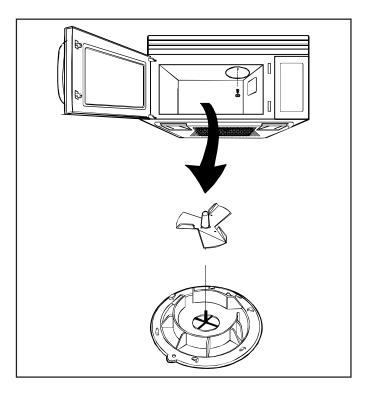


#### **Stirrer Assembly Removal**

Motor driven antenna assembly is located at the top of the cavity, using a top feed wave guide.

#### Stirrer Blade Removal

- 1. Disconnect power to oven and open the oven door.
- 2. Carefully pry downward on the plastic rivets securing the stirrer cover.
- 3. Rotate slightly and pull down on stirrer fan cover .
- 4. Reassemble in reverse order.





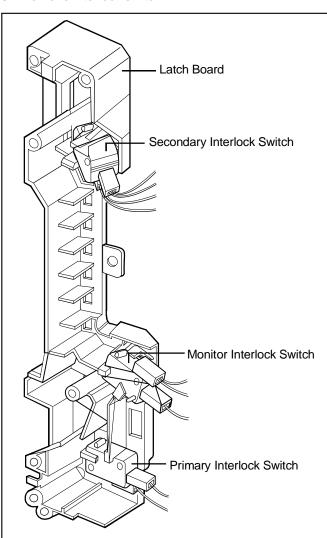
#### WARNING

#### **Interlock Door Latch Switches Removal**

Primary switch is operated by the top latch pawl.

#### **Interlock Switch Removal**

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Test interlock switches before removing, see Testing Procedures.
- 4. Disconnect and label wire connections.
- 5. Remove interlock switch.



# **CAUTION**

Before replacing a blown monitor fuse, test the primary interlock switch, secondary interlock switch, monitor switch, and power relay contacts for proper operation. If the monitor fuse is blown by a failed switch operation, all switches and printed circuit board must be replaced.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

#### Adjusting Interlocks

The interlock monitor and primary switches act as a final safety switch, protecting the operator from microwave energy. After adjusting the interlock switches, verify connections are correctly connected.

# For door fit and switch operation, switch housing is adjustable.

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Loosen switch housing mounting screws on vertical flange.
- 4. Close oven door, move latch board upward toward the top of the oven and/or away from the door latch until gaps are less than ¹/64–inch (0.5 mm).
- 5. Hold latch board securely for proper switch operation and door fit, retighten screws.
- 6. Open the oven door slowly, watching the switches. Verify switches release in the following order.
  - · Primary interlock switch
  - Secondary interlock switch
  - · Monitor interlock switch

**NOTE:** Adjust the latch board until all switches operate in proper sequence.

- 7. Close the oven door slowly, watching the switches. Verify switches active in the following order.
  - · Monitor interlock switch
  - Secondary interlock switch
  - · Primary interlock switch
- 8. When proper sequence of switch has been achieved, tighten the latch board securely.



### **CAUTION**

A microwave leakage test must be preformed anytime a door assembly is removed, replaced, disassembled or adjustment of latch board is made.

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### WARNING

### **High Voltage Capacitor Removal**

High voltage capacitor should always be discharged by shorting a terminal to a chassis ground. The capacitor has a internal "shunt" resistor, but the mechanical discharge should always be performed to avoid personal injury.

#### **High Voltage Capacitor Removal**

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor by connecting a jumper wire to the terminal of high voltage capacitor with the diode connected to it. Connect the other end of the jumper wire to a well insulated screwdriver and touch a nearby chassis ground screw.
- 3. Remove screws that secure capacitor and diode.
- 4. Slide capacitor mounting bracket out of the slots and pull outward on capacitor, diode and bracket.
- 5. Reassemble in reverse order.

#### **Diode Removal**

The diode is located next to the high voltage capacitor.

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Disconnect diode wire terminal from high voltage capacitor and remove screw securing diode to around.
- 4. Reassemble in reverse order.

#### **Transformer Removal**

High voltage transformer can be serviced through the front of the unit.

#### **Transformer Removal**

- 1. Disconnect power to oven and remove control panel. see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Disconnect and label wire leads from transformer.
- 4. Remove screws securing transformer and remove out through the front.
- 5. Reassemble in reverse order.

#### Replacing Fuse

The fuse is located behind the grille in line with the power cord on the right side of the unit.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

#### **Fuse Removal**

- 1. Disconnect power and remove grille, see "Grille Removal" procedure.
- 2. Remove and replace fuse and reassemble in reverse order.



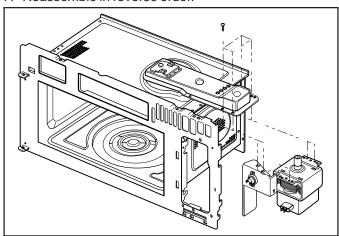
### CAUTION

Before replacing a blown monitor fuse, test the primary interlock switch, secondary interlock switch, monitor switch, and power relay contacts for proper operation. If the monitor fuse is blown by a failed switch operation, all switches and printed circuit board must be replaced.

#### **Magnetron Removal**

Magnetron is mounted on the side of the cavity to provide a top feed single waveguide.

- 1. Disconnect power to oven and remove grille, see "Grille Removal" procedure.
- 2. Remove control panel, see "Control Panel Removal" procedure.
- 3. Remove outer case, see "Outer Case Removal" procedure.
- 4. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 5. Remove screws securing magnetron to wave guide.
- 6. Carefully remove the magnetron.
- 7. Reassemble in reverse order.



NOTE: When replacing the magnetron, make sure the gasket is in the correct position and in good condition.



#### CAUTION

During replacement of magnetron, be certain the R.F. anode gasket is in place around anode stud.



#### WARNING

# A

### WARNING

A microwave leakage test must be performed anytime a magnetron assembly is removed, replaced, disassembled or adjusted for any reason.

#### Magnetron Fan Assembly Removal

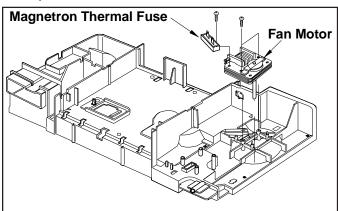
Magnetron fan motor provides cool air circulation from an external air source, which provides direct cool air through air vanes surrounding the magnetron. This assembly is located above the magnetron.

- Follow steps 1 through 5 of "Magnetron Removal" procedure.
- 2. Remove fan blade from fan motor.
- 3. Remove screws securing fan motor to air duct.
- 4. Label and disconnect wires from fan motor and lift assembly out.
- 5. Reassemble in reverse order.

#### **Magnetron Thermal Fuse Removal**

**NOTE:** Thermal fuse is not resettable.

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Remove outer case, see "Outer Case Removal" procedure.
- 4. Label and disconnect wire terminals.
- 5. Remove screw securing thermal fuse to cooling fan.
- 6. Replace and reassemble in reverse order.

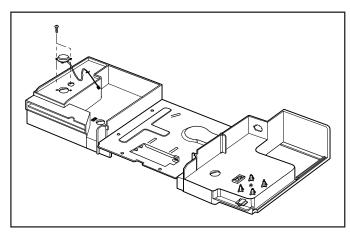


### **Humidity Sensor Removal (Select Models)**

The sensor is a plug-in device located in the air exhaust duct.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- Remove outer case, see "Outer Case Removal" procedure.
- 4. Remove screws securing sensor to air duct.
- 5. Disconnect wire terminal; replace with new sensor.
- 6. Reassemble in reverse order.



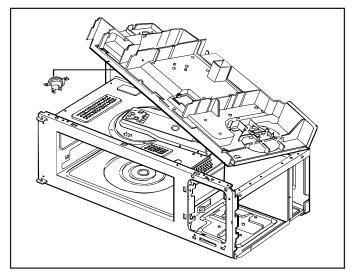
#### Oven Thermostat Removal

The oven thermostat is on the air duct assembly.

The thermostat is a resettable thermostat.

- 1. Disconnect power to oven and remove control panel, see "Control Panel Removal" procedure.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Remove outer case, see "Outer Case Removal" procedure.
- 4. Disconnect wire terminals from oven thermostat.

**NOTE:** Lift upward on left rear corner of air duct to release oven thermostat.



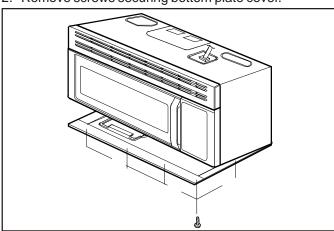
### **Disassembly Procedures**



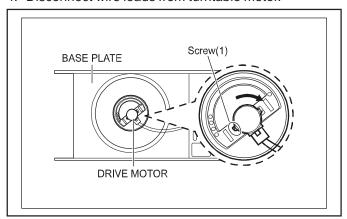
### WARNING

#### Turntable Motor Removal

- 1. Disconnect power to oven.
- 2. Remove screws securing bottom plate cover.



- 3. Open the oven door, remove turntable, and gently pry upward on turntable shaft.
- 4. Disconnect wire leads from turntable motor.



- 5. Remove screws securing turntable to the oven cavity.
- 6. Replace and reassemble in reverse order.

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

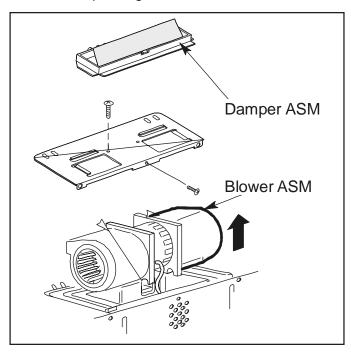
### **Vent Blower Removal**

Vent blower is a five speed capacitor run blower assembly located on top of the oven. The blower is operated by voltage relays located on the circuit board.

#### **Vent Exhaust Blower Removal**

- 1. Disconnect power to unit and remove unit from its installation.
- 2. Remove screws securing damper and motor assembly to top and back of unit.
- 3. Remove damper.
- 4. Lift blower assembly out and disconnect wire connection wire terminal.
- 5. Reassemble in reverse order.

**NOTE:** Place blower assembly wires in slotted area to avoid pinching of wires.



### **Disassembly Procedures**

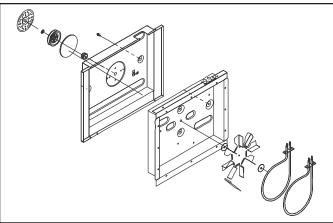


### WARNING

To avoid risk of electrical shock, personal injury or death; disconnect power to microwave oven and discharge the high voltage capacitor before performing any disassembly procedures.

### Convection Motor and Heater Element Removal (Select Models)

- 1. Disconnect power to oven.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Remove outer case, see "Outer Case Removal" procedure.
- Remove screws securing back cover and pull the top of back cover downward, sliding right side metal tab from oven cavity.
- 5. Remove screws securing air duct to chassis and other components.
- 6. Label and disconnect wire leads from air duct.
- 7. Remove magnetron see "Magnetron Removal" procedure.
- 8. Remove screws securing bottom plate to chassis.
- 9. Disconnect wire leads from convection chamber.
- 10. Remove screws securing convection chamber assembly and lift assembly from oven cavity.
- 11. Slide inner convection fan blade off convection motor shaft.
- 12. Remove nuts securing convection motor to bracket.
- 13. Replace and reassembly in reverse order.



### **Convection Heater Element Removal** (Select Models)

- 1. See "Convection Motor Removal;" perform steps 1 through 9.
- 2. Remove screws at and next to terminals securing wires and element to heater box.
- 3. Release metal clip securing element to heater box.
- 4. Remove element from heater box.
- 5. Replace and reassembly in reverse order.

### **Light Socket Removal**

- 1. Disconnect power to oven.
- 2. Remove Grille, see "Grille Removal" procedure.
- 3. Remove screws securing bulb holder.
- 4. Remove light bulb and socket.
- 5. Disconnect wire terminal plug.
- 6. Replace and reassemble in reverse order.

### Grille Heater Element Removal (Select Models)

- 1. Disconnect power to oven.
- 2. Discharge high voltage capacitor, see "High Voltage Capacitor Removal" procedure.
- 3. Remove outer case, see "Outer Case Removal" procedure.
- 4. Remove screws securing back cover and pull the top of back cover downward sliding metal tab on right side from oven cavity.
- 5. Remove screws securing air duct to chassis and other components.
- 6. Disconnect wire leads from air duct.
- 7. Remove screw securing upper insulator.
- 8. Remove screws securing the heater terminal and heater barrier.
- 9. Remove screws securing the heater holding bracket.
- 10. Remove grille heater from cavity.
- 11. Replace and reassembly in reverse order.

# Appendix A

The Installation information provided in this service manual is representative of a limited number of models. Reference the customer's Installation literature included with the product, order a copy (if needed), or consult the appropriate website for the specific model.

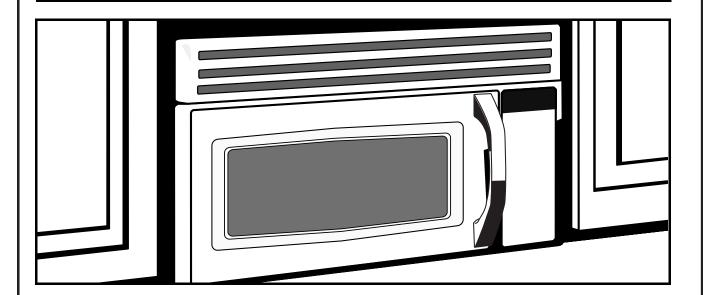
www.maytag.com or www.amana.com or www.jennair.com

### **Over the Range Microwave Oven**

### **BEFORE YOU BEGIN**

Read these instructions completely and carefully.

- **IMPORTANT** Save these instructions for local inspector's use.
- IMPORTANT Observe all governing codes and ordinances.
- Note to Installer Be sure to leave these instructions with the Consumer.
- Note to Consumer Keep these instructions for future reference.
- **Skill level** Installation of this appliance requires basic mechanical and electrical skills.
- Proper installation is the responsibility of the installer.
- Product failure due to improper installation is not covered under the Warranty.



READ CAREFULLY. KEEP THESE INSTRUCTIONS.

### **Installation Instructions**

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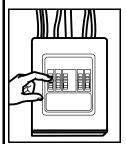
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### **IMPORTANT SAFETY INSTRUCTIONS**

This product requires a three-prong grounded outlet. The installer must perform a ground continuity check on the power outlet box before beginning the installation to insure that the outlet box is properly grounded. If not properly grounded, or if the outlet box does not meet electrical requirements noted (under ELECTRICAL REQUIREMENTS), a qualified electrician should be employed to correct any deficiencies.



CAUTION: For personal safety, remove house fuse or open circuit breaker before beginning installation to avoid severe or fatal shock injury.

CAUTION: For personal safety, the mounting surface must be capable of supporting the cabinet load, in addition to the added weight of this 59 pound product, plus additional oven loads of up to 50 pounds or a total weight of 109 pounds.

CAUTION: For personal safety, this product cannot be installed in cabinet arrangements such as an island or a peninsula. It must be mounted to BOTH a top cabinet AND a wall.

NOTE: For easier installation and personal safety, it is recommended that two people install this product.

IMPORTANT-PLEASE READ CAREFULLY. FOR PERSONAL SAFETY, THIS APPLIANCE MUST BE PROPERLY GROUNDED TO AVOID SEVERE OR FATAL SHOCK.



The power cord of this appliance is equipped with a three-prong (grounding) plug which mates with a standard three-prong (grounding) wall receptacle to minimize the possibility of electric shock hazard from this appliance.

You should have the wall receptacle and circuit checked by a qualified electrician to make sure the receptacle is properly grounded.

Where a standard two-prong wall receptacle is encountered, it is very important to have it replaced with a properly grounded three-prong wall receptacle, installed by a qualified electrician.

DO NOT, UNDER ANY CIRCUMSTANCES, CUT, DEFORM OR REMOVE ANY OF THE PRONGS FROM THE POWER CORD. DO NOT USE WITH AN EXTENSION CORD.

#### **ELECTRICAL REQUIREMENTS**

Product rating is 120 volts AC, 60 Hertz,

- -MMV4205, AMV5206, MMV5207, JMV8208 (USA):
- 14.8 amps and 1.7 kilowatts.
- -MMV5207,JMV8208 (CANADA) / AMV6167:
- 13 amps and 1.5 kilowatts.
- **-JMV8166/JMV9169:** 14.5 amps and 1.6 kilowatts.

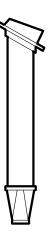
This product must be connected to a supply circuit of the proper voltage and frequency. Wire size must conform to the requirements of the National Electrical Code or the prevailing local code for this kilowatt rating. The power supply cord and plug should be brought to a separate 20 ampere branch circuit single grounded outlet. The outlet box should be located in the cabinet above the microwave oven. The outlet box and supply circuit should be installed by a qualified electrician and conform to the National Electrical Code or the prevailing local code.

### **HOOD EXHAUST**

NOTE: Read these next two pages only if you plan to vent your exhaust to the outside. If you plan to recirculate the air back into the room, proceed to page 11.

### **OUTSIDE TOP EXHAUST (EXAMPLE ONLY)**

The following chart describes an example of one possible ductwork installation.



DUCT PIECES	3	EQUIVALENT LENGTH	x	NUMBER USED	-	EQUIVALENT LENGTH
	Roof Cap	24 Ft.	х	(1)	=	24 Ft.
	12 Ft. Straight Duct (6" Round)	12 Ft.	х	(1)	=	12 Ft.
	Rectangular-to-Round Transition Adaptor*	5 Ft.	х	(1)	=	5 Ft.
Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.			То	tal Length	=	41 Ft.

<sup>\*</sup> IMPORTANT: If a rectangular-to-round transition adaptor is used, the bottom corners of the damper will have to be cut to fit, using the tin snips, in order to allow free movement of the damper.

### **OUTSIDE BACK EXHAUST (EXAMPLE ONLY)**

The following chart describes an example of one possible ductwork installation.



DUCT PIECES	5	EQUIVALENT LENGTH*	x	NUMBER USED	=	EQUIVALENT LENGTH
	Roof Cap	40 Ft.	x	(1)	=	40 Ft.
	3 Ft. Straight Duct (3¼" x 10" Rectangular)	3 Ft.	х	(1)	=	3 Ft.
	90° Elbow	10 Ft.	х	(2)	=	20 Ft.
tests and refle	gths of duct pieces are be ct requirements for good vith any vent hood.		То	tal Length	=	63 Ft.

**NOTE:** For back exhaust, care should be taken to align exhaust with space between studs, or wall should be prepared at the time it is constructed by leaving enough space between the wall studs to accommodate exhaust.

#### Installation Instructions

**NOTE:** If you need to install ducts, note that the total duct length of 3½" x 10" rectangular or 6" diameter round duct should not exceed 60 equivalent feet.

Outside ventilation requires a HOOD EXHAUST DUCT. Read the following carefully.

**NOTE:** It is important that venting be installed using the most direct route and with as few elbows as possible. This ensures clear venting of exhaust and helps prevent blockages. **Also, make sure dampers swing freely and nothing is blocking the ducts.** 

#### **Exhaust connection:**

The hood exhaust has been designed to mate with a standard  $3\frac{1}{4}$ " x 10" rectangular duct.

If a round duct is required, a rectangular-to-round transition adaptor must be used. **Do not use less than a 6" diameter duct.** 

### Maximum duct length:

For satisfactory air movement, the total duct length of 3½" x 10" rectangular or 6" diameter round duct should not exceed 60 equivalent feet.

Elbows, transitions, wall and roof caps, etc., present additional resistance to airflow and are equivalent to a section of straight duct which is longer than their actual physical size. When calculating the total duct length, add the equivalent lengths of all transitions and adaptors plus the length of all straight duct sections. The chart below shows you how to calculate total equivalent ductwork length using the approximate feet of equivalent length of some typical ducts.

DUCT PIECES		EQUIVALENT LENGTH	x	NUMBER USED	=	EQUIVALENT LENGTH
	Rectangular-to-Round Transition Adaptor*	5 Ft.	х	( )	=	Ft.
	Wall Cap	40 Ft.	x	( )	=	Ft.
	90° Elbow	10 Ft.	x	( )	=	Ft.
	45° Elbow	5 Ft.	x	( )	=	Ft.
	90° Elbow	25 Ft.	х	( )	=	Ft.
	45° Elbow	5 Ft.	х	( )	=	Ft.
	Roof Cap	24 Ft.	х	( )	=	Ft.
	Straight Duct 6" Round or 31/4" x 10" Rectangular	1 Ft.	х	( )	=	Ft.
			Total	Ductwork	=	Ft.



\* IMPORTANT: If a rectangular-toround transition adaptor is used, the bottom corners of the damper will have to be cut to fit, using the tin snips, in order to allow free movement of the damper. Equivalent lengths of duct pieces are based on actual tests and reflect requirements for good venting performance with any vent hood.

### DAMAGE - SHIPMENT/ INSTALLATION

- If the unit is damaged in shipment, return the unit to the store in which it was bought for repair or replacement.
- If the unit is damaged by the customer, repair or replacement is the responsibility of the customer.
- If the unit is damaged by the installer (if other than the customer), repair or replacement must be made by arrangement between customer and installer.

### **PARTS INCLUDED**

### HARDWARE PACKET

PART		QUANTITY
Emmana	Wood Screws (¼" x 2")	1
0	Toggle Bolts (and wing nuts) ( <sup>3</sup> / <sub>16</sub> " x 3")	3
	Self-aligning Machine Screws (¼"-28 x 3¼")	3
grand and the state of the stat	Nylon Grommet (for metal cabinets)	2

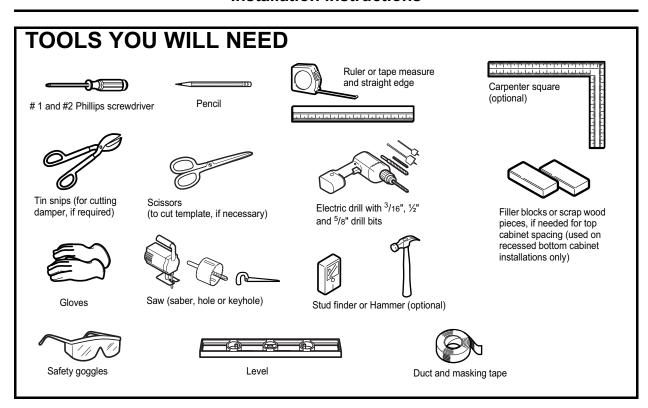
You will find the installation hardware contained in a packet with the unit. Check to make sure you have all these parts.

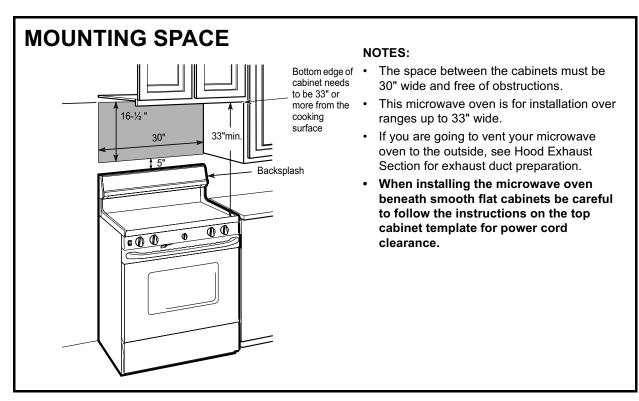
NOTE: Some extra parts are included.

### **ADDITIONAL PARTS**

PART		QUANTITY
TOP CABINET TEMPLATE	Top Cabinet Template	1
REAR WALL TEMPLATE	Rear Wall Template	1
Installation Instructions	Installation Instructions	1
	Separately Packed Grease Filters	2
	Exhaust adaptor	1

### Installation Instructions

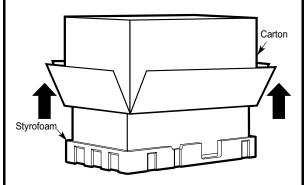




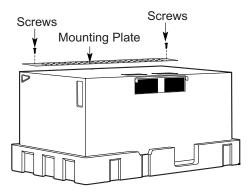
### 1.PLACEMENT OF THE MOUNTING PLATE

# A. REMOVING THE MICROWAVE OVEN FROM THE CARTON/ REMOVING THE MOUNTING PLATE

- **1.** Remove the installation instructions, Exhaust adaptor, filters, glass tray and the small hardware bag. Do not remove the Styrofoam protecting the front of the oven.
- **2.** Fold back all 4 carton flaps fully against carton sides. Then carefully roll the oven and carton over onto the top side. The oven should be resting in the Styrofoam.



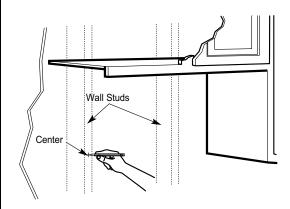
- **3.** Pull the carton up and off the oven.
- **4.** Remove and properly discard plastic bags.



**5.** Remove the 2 screws from the mounting plate. This plate will be used as the rear wall template and for mounting.

**NOTE:** You will have to reuse two screws in original loction of outcase after removing mounting plate.

### **B.** FINDING THE WALL STUDS



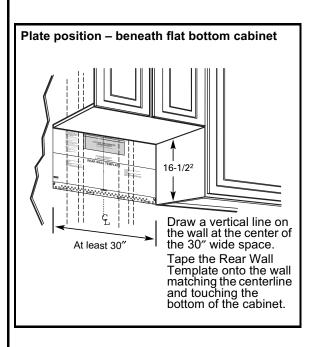
- **1.** Find the studs, using one of the following methods:
  - **A.** Stud finder–a magnetic device which locates nails.

OR

- **B.** Use a hammer to tap lightly across the mounting surface to find a solid sound. This will indicate a stud location.
- 2. After locating the stud(s), find the center by probing the wall with a small nail to find the edges of the stud. Then place a mark halfway between the edges. The center of any adjacent studs should be 16" or 24" from this mark.
- **3.** Draw a line down the center of the studs.

THE MICROWAVE MUST BE CONNECTED TO AT LEAST ONE WALL STUD.

### C. DETERMINING WALL PLATE LOCATION UNDER YOUR CABINET



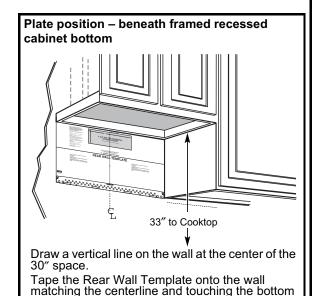


Plate position – beneath recessed bottom cabinet with front overhang

Draw a line on the back wall equal to the depth of the front overhang.

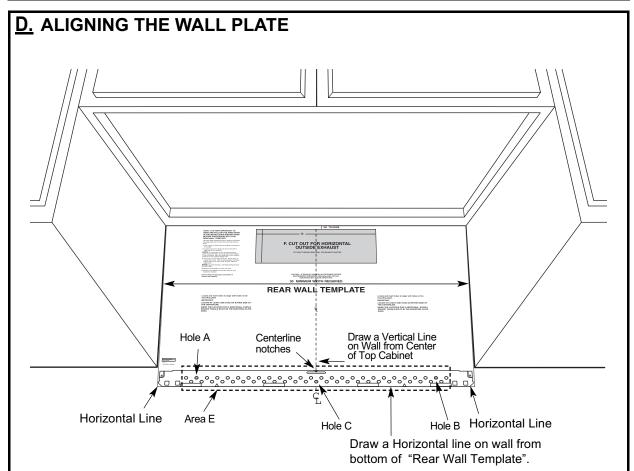
Your cabinets may have decorative trim that interferes with the microwave installation. Remove the decorative trim to install the microwave properly and to make it level.

#### THE MICROWAVE MUST BE LEVEL.

cabinet frame.

Use a level to make sure the cabinet bottom is level. If the cabinets have a front overhang only, with no back or side frame, install the mounting plate down the same distance as the front overhang depth. This will keep the microwave level.

- **1.** Measure the inside depth of the front overhang.
- **2.** Draw a horizontal line on the back wall an equal distance below the cabinet bottom as the inside depth of the front overhang.
- 3. For this type of installation with front overhang only, align the mounting tabs with this horizontal line, not touching the cabinet bottom as described in Step D.



**CAUTION:** Wear gloves to avoid cutting fingers on sharp edges.

- **1.** Draw a Vertical line on the wall at the center of the 30" wide space.
- Draw a Horizontal line on the wall at the bottom of "Rear Wall Template".
- 3. Drill 5/8" holes for toggle bolts on 3 locations (Hole A, Hole B, Hole C) but if the location of hole is same as that of stud, drill a 3/16" hole for wood screw. In other words, toggle bolt can not be used to the location of stud.

NOTE: DO NOT MOUNT THE PLATE AT THIS TIME.

**NOTE:** Holes A, B and C are inside area E. If none of A, B and C is in a stud, find a stud somewhere in area E and draw a forth circle to line up with the stud. It is important to use **at least one wood screw** mounted **firmly in a stud** to support the weight of the microwave. **Set the mounting plate aside**.

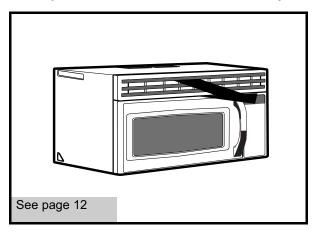
### 2. INSTALLATION TYPES (Choose A, B or C)

This microwave oven is designed for adaptation to the following three types of ventilation:

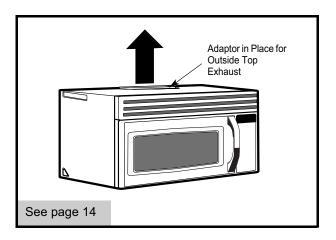
- A. Recirculating (Non-Vented Ductless)
- **B. Outside Top Exhaust (Vertical Duct)**
- C. Outside Back Exhaust (Horizontal Duct)

**NOTE:** This microwave is shipped after being assembled for "Recirculating". And exhaust adaptor is shipped assembled to the filler-upper. Select the type of ventilation required for your installation and proceed to that section.

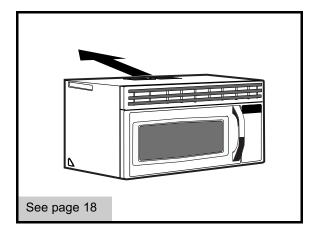
### A. RECIRCULATING (NON-VENTED DUCTLESS)



### B. OUTSIDE TOP EXHAUST (VERTICAL DUCT)



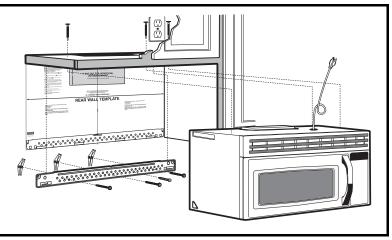
### C. OUTSIDE BACK EXHAUST (HORIZONTAL DUCT)



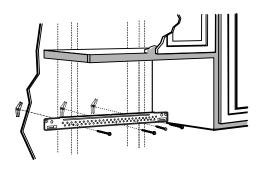
### A. RECIRCULATING (Non-Vented Ductless)

#### **INSTALLATION OVERVIEW**

- A1. Attach Mounting Plate to Wall
- A2. Prepare Top Cabinet
- A3. Mount the Microwave Oven



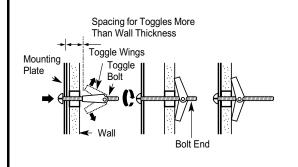
### A1. ATTACH THE MOUNTING PLATE TO THE WALL



Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

- **1.** Remove the toggle wings from the bolts.
- **2.** Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to <sup>3</sup>/<sub>4</sub> " onto each bolt.

### To use toggle bolts:



**3.** Place the mounting plate against the wall and insert the toggle wings into the holes in the wall to mount the plate.

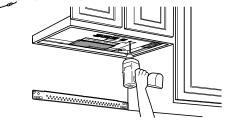
**NOTE:** Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

**CAUTION:** Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

**4.** Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

### A2. USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

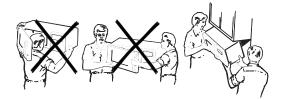
You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.



- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

**CAUTION:** Wear safety goggles when drilling holes in the cabinet bottom.

### A3. MOUNT THE MICROWAVE OVEN



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT **TWO PEOPLE INSTALL THIS MICROWAVE OVEN**.

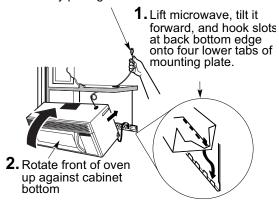
IMPORTANT: Do not grip or use handle during installation.

**NOTE:** If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

**NOTE:** We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

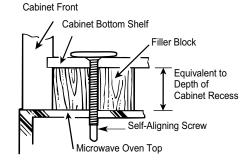
IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

**NOTE:** When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.

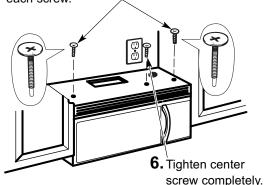


3. Insert a self-aligning screw through top center cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord,

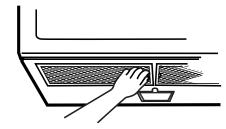
especially when mounting flush to bottom of cabinet.



- **4.** Attach the microwave oven to the top cabinet.
- **5.** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.

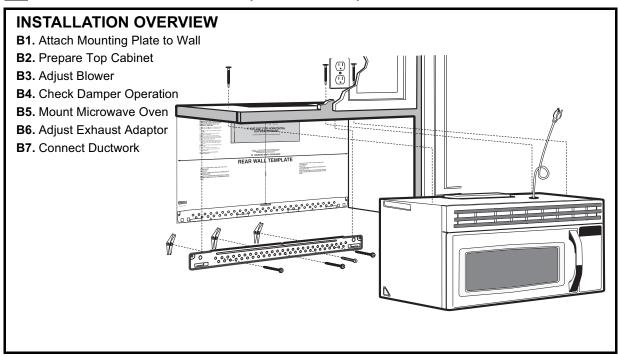


7. Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)

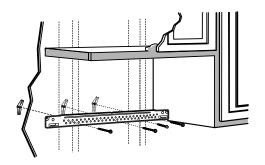


**8.** Install grease filters. See the Owner's Manual packed with the microwave.

### **B.** OUTSIDE TOP EXHAUST (Vertical Duct)



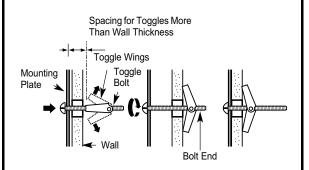
### B1. ATTACH THE MOUNTING PLATE TO THE WALL



Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

- **1.** Remove the toggle wings from the bolts.
- 2. Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to 3/4" onto each bolt.

### To use toggle bolts:



**3.** Place the mounting plate against the wall and insert the toggle wings into the holes in the wall to mount the plate.

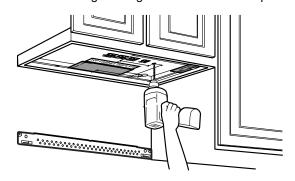
**NOTE:** Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

**CAUTION:** Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

**4.** Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

### B2. USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

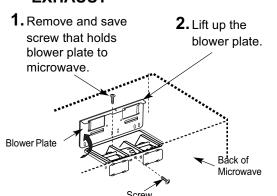
You need to drill holes for the top support screws, a hole large enough for the power cord to fit through, and a cutout large enough for the exhaust adaptor.



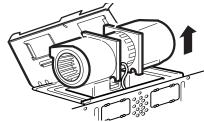
- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

**CAUTION:** Wear safety goggles when drilling holes in the cabinet bottom.

### B3. ADAPTING MICROWAVE BLOWER FOR OUTSIDE TOP EXHAUST

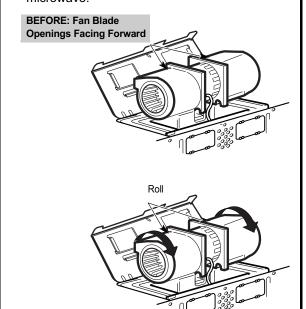


**3.** Carefully pull out the blower unit. The wires will extend far enough to allow you to adjust the blower unit.

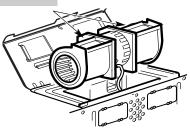


**CAUTION:** Do not touch blade of blower to prevent cracking and breaking. Hold outer case when the blower is removed and re-installed.

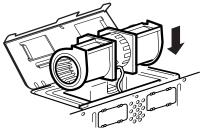
**4.** Roll the blower unit 90° so that fan blade openings are facing toward the top of the microwave.



### AFTER: Fan Blade Openings Facing Upward



**5.** Place the blower unit back into the opening.

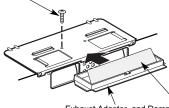


**CAUTION:** Do not pull or stretch the blower unit wiring. Make sure the wires are not pinched.

**6.** Secure blower unit to microwave with the screw.

## B4. INSTALLATION PROCEDURE FOR EXHAUST ADAPTOR AND PROPER DAMPER OPERATION CHECK

 Remove and save screw from the panel-outer



Exhaust Adaptor and Damper is shipped after being assembled to the filler-upper.

- **2.** Slide exhaust adaptor following the instructions show in diagram.
- **3.** Make sure tape securing damper is removed and damper pivots easily before mounting microwave
- 4. Lift damper and Re-screw at same location as (1)
- You will need to make adjustments to assure proper alignment with your house exhaust duct after the microwave is installed.

### **B5. MOUNT THE MICROWAVE OVEN**



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT TWO PEOPLE INSTALL THIS MICROWAVE OVEN.

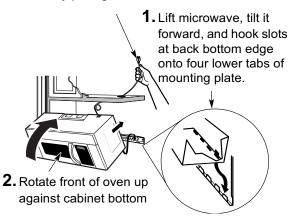
IMPORTANT: Do not grip or use handle during installation.

**NOTE:** If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

**NOTE:** We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

**NOTE:** When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



3. Insert a self-aligning screw through top center cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord, especially when mounting flush to bottom of cabinet.

### <u>B5.</u> MOUNT THE MICROWAVE OVEN (cont.)

Cabinet Front

Cabinet Bottom Shelf

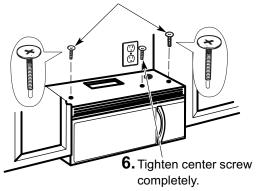
Filler Block

Equivalent to Depth of Cabinet Recess

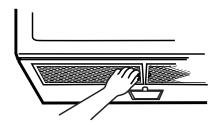
Self-Aligning Screw

Microwave Oven Top

- **4.** Attach the microwave oven to the top cabinet.
  - **5.** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.



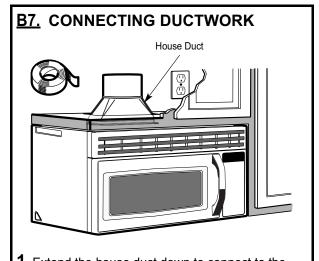
7. Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)



**8.** Install grease filters. See the Owner's Manual packed with the microwave.

# B6. ADJUST THE EXHAUST ADAPTOR Open the top cabinet and adjust the exhaust adaptor to connect to the house duct. Blower-Plate Damper Back of Microwave For Front-to-Back Adjustment, Slide the

Exhaust Adaptor as Needed

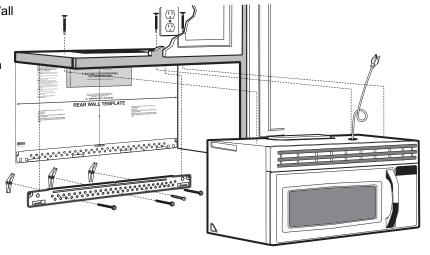


- **1.** Extend the house duct down to connect to the exhaust adaptor.
- **2.** Seal exhaust duct joints using duct tape.

### **C.** OUTSIDE BACK EXHAUST (Horizontal Duct)

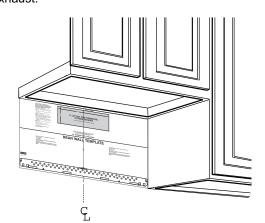
### **INSTALLATION OVERVIEW**

- C1. Prepare Rear Wall
- C2. Attach Mounting Plate to Wall
- C3. Prepare Top Cabinet
- C4. Adjust Blower
- C5. Mount the Microwave Oven



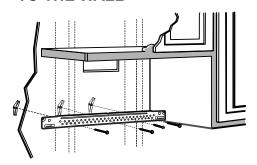
### C1. PREPARING THE REAR WALL FOR OUTSIDE BACK EXHAUST

You need to cut an opening in the rear wall for outside exhaust.



- Read the instructions on the REAR WALL TEMPLATE.
- · Tape it to the rear wall.
- Cut the opening, following the instructions of the REAR WALL TEMPLATE.

### C2. ATTACH THE MOUNTING PLATE TO THE WALL

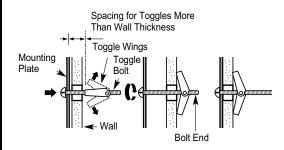


Attach the plate to the wall using toggle bolts. At least one wood screw must be used to attach the plate to a wall stud.

- **1.** Remove the toggle wings from the bolts.
- **2.** Insert the bolts into the mounting plate through the holes designated to go into drywall and reattach the toggle wings to <sup>3</sup>/<sub>4</sub> " onto each bolt.

### C2. ATTACH THE MOUNTING PLATE TO THE WALL (cont.)

### To use toggle bolts:



**3.** Place the mounting plate against the wall and insert the toggle wings into the holes in the wall to mount the plate.

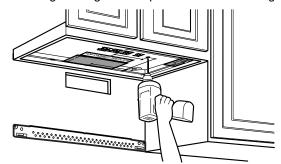
**NOTE:** Before tightening toggle bolts and wood screw, make sure to coincide bottom line of the Mounting plate with Horizontal line of "Rear wall Template" and then the Mounting plate is properly centered under the cabinet.

**CAUTION:** Be careful to avoid pinching fingers between the back of the mounting plate and the wall.

**4.** Tighten all bolts. Pull the plate away from the wall to help tighten the bolts.

### C3. USE TOP CABINET TEMPLATE FOR PREPARATION OF TOP CABINET

You need to drill holes for the top support screws and a hole large enough for the power cord to fit through.

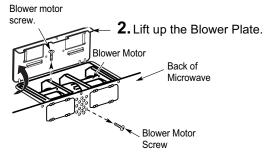


- Read the instructions on the TOP CABINET TEMPLATE.
- Tape it underneath the top cabinet.
- Drill the holes, following the instructions on the TOP CABINET TEMPLATE.

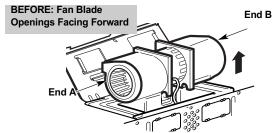
**CAUTION:** Wear safety goggles when drilling holes in the cabinet bottom.

### C4. ADAPTING MICROWAVE BLOWER FOR OUTSIDE BACK EXHAUST

**1.** Remove and save screw that holds blower Plate to microwave.

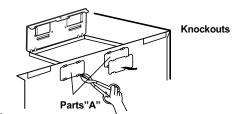


**3.** Carefully pull out the blower unit. The wires will extend far enough to allow you to adjust the blower unit.

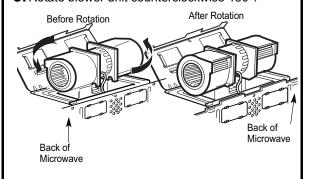


**CAUTION:** Do not touch blade of blower to prevent cracking and breaking. Hold outer case when the blower is removed and re-installed.

**4.** Remove "Parts "A" with Nipper or Scissors

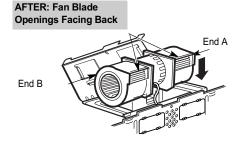


5. Rotate blower unit counterclockwise 180°.



#### Installation Instructions

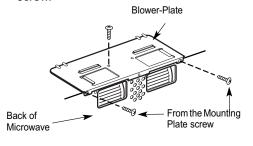
**6.** Place the blower unit back into the opening.



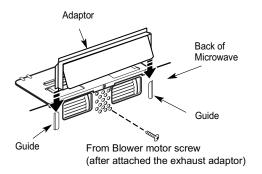
CAUTION: Do not pull or stretch the blower unit wiring. Make sure the wires are not pinched.

NOTE: The blower unit exhaust openings should match exhaust openings on rear of microwave oven.

Secure the blower unit to the microwave with the screw.



**8.** Attach the exhaust adaptor to the rear of the oven by sliding it into the guides at the top center of the back of the oven.



Push in securely until it is in the lower locking tabs. Take care to assure that the damper hinge is installed so that it is at the top and that the damper swings freely.

### **C5.** MOUNT THE MICROWAVE OVEN



FOR EASIER INSTALLATION AND PERSONAL SAFETY, WE RECOMMEND THAT **TWO PEOPLE INSTALL THIS MICROWAVE OVEN**.

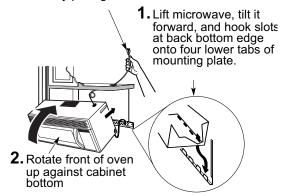
IMPORTANT: Do not grip or use handle during installation.

**NOTE:** If your cabinet is metal, use the nylon grommet around the power cord hole to prevent cutting of the cord.

**NOTE:** We recommend using filler blocks if the cabinet front hangs below the cabinet bottom shelf.

IMPORTANT: If filler blocks are not used, case damage may occur from over tightening screws.

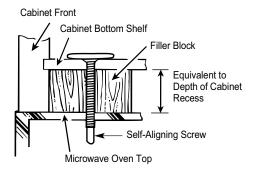
**NOTE:** When mounting the microwave oven, thread power cord through hole in bottom of top cabinet. Keep it tight throughout Steps 1–3. Do not pinch cord or lift oven by pulling cord.



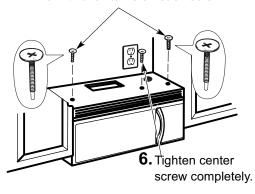
3. Insert a self-aligning screw through top center cabinet hole. Temporarily secure the oven by turning the screw at least two full turns after the threads have engaged. (It will be completely tightened later.) Be sure to keep power cord tight. Be careful not to pinch the cord, especially when mounting flush to bottom of cabinet.

### C5. MOUNT THE MICROWAVE OVEN (cont.)

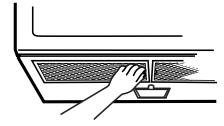
Install grease filters. See the Owner's Manual packed with the microwave.



- **4.** Attach the microwave oven to the top cabinet.
  - **5.** Insert 2 self-aligning screws through outer top cabinet holes. Turn two full turns on each screw.



**7.** Tighten the outer two screws to the top of the microwave oven. (While tightening screws, hold the microwave oven in place against the wall and the top cabinet.)



**8.** Install grease filters. See the Owner's Manual packed with the microwave.

# Appendix B

The Use and Care information provided in this service manual is representative of a limited number of models. Reference the customer's Use and Care literature included with the product, order a copy (if needed), or consult Jenn-Air's website for the specific model.

www.maytag.com or www.amana.com or www.jennair.com

# Over The Range Microwave Oven

**Use & Care Guide** 

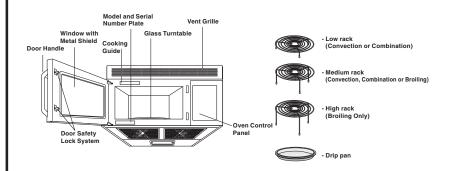
Model JMV9169BA

Keep instructions for future reference. Be sure Use & Care Guide stays with oven.

Form No. A/08/05

Part No.8112P302-60 Code No. DE68-03143J

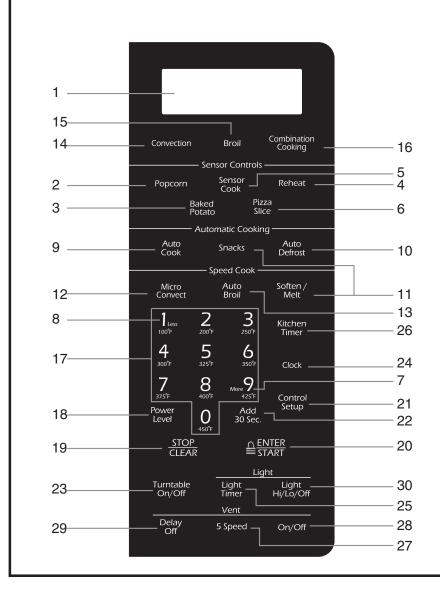
### **Features**



• See pages 22 and 27

### **OVEN SPECIFICATIONS**

<u> </u>	
Power Supply	120 VAC, 60 Hz
Input Power	1,600W (USA)
Cooking Power	950 W (IEC 60705 Standard)
Frequency	2,450 MHz
Rated Current	14.5 A (USA)
Outer Dimensions	29 <sup>7</sup> /8"(W) x 16 <sup>15</sup> / <sub>16</sub> "(H) x 15 <sup>7</sup> / <sub>16</sub> "(D)
Cavity Volume	1.6 Cu. Ft.
Net Weight	71 lbs.



### LEARN ABOUT YOUR MICROWAVE OVEN

This section introduces you to the basics you need to know to operate your microwave oven. Please read this information before use.

### **A** CAUTION

- To avoid risk of personal injury or property damage, do not run oven empty.
- To avoid risk of personal injury or property damage, do not use stoneware, aluminum foil, metal utensils, or metal trimmed utensils in the oven.

### **CLOCK**

Example: To set 8:00 AM.

Clock

1. Touch **CLOCK** pad.

8 0 0 400°F 450°F 450°F 2. Enter the time by using the number pads.

<u>ENTER</u> START

3. Touch ENTER/ START pad.

1 Less 100°F 4. Touch 1 for AM.

<u>ENTER</u> START

Touch ENTER/ START pad.

#### NOTE:

 Follow steps 1-3 above in the 24 hour clock mode.

#### KITCHEN TIMER

You can use your microwave oven as a timer. Use the Kitchen Timer for timing up to 99 minutes, 99 seconds.

Example: To set for 8 minutes.

Kitchen Timer

1. Touch KITCHEN TIMER pad.

8 0 0

2. Enter the time by using the number pads.

<u>ENTER</u> START

Touch ENTER/ START pad.

When the time is over, you will hear beeps and **END** will display.

### **CONTROL SETUP**

You can change the default values. See following chart for more information.

No.	Function	No.	Result
1	Weight mode selected	1 2	Lbs. Kg.
2	Sound ON/OFF control	1 2	Sound ON Sound OFF
3	Clock display control	1 2	12HR 24HR
4	Display	1 2 3	Slow speed Normal speed Fast speed
5	Remind end Signal	1 2	ON OFF
6	Demo Mode	1 2	ON OFF
7	Daylight Saving Time	1 2	ON OFF

Example: To change weight mode (from Lbs. to Kg).

Control Setup

1. Touch CONTROL SETUP pad.

1 Less 100°F 2. Touch number **1** pad.

2 200°F Touch number 2 pad.

#### **VENT FAN**

The VENT moves steam and other vapors from the cooking surface. The vent will operate at the **LEVEL 2** whenever the oven is on.

Example: To set Level 4.

On/Off

1. Touch **ON/OFF** pad. This shows the last level until you select the fan speed level.

5 Speed

2. Touch **5 SPEED** pad until Level 4 appears in the display.

Touch **ON/OFF** pad to turn off fan when desired.

#### NOTE:

• If the temperature gets too hot around the microwave oven, the fan in the vent hood will automatically turn on at the **LEVEL2** setting to cool the oven. The fan will automatically turn off when the internal parts are cool. When this occurs, the vent cannot be turned off

### **DELAY OFF**

Example: To turn off fan after 30 minutes for Level 4.

On/Off

1. Touch ON/OFF pad.

5 Speed

2. Touch **5 SPEED** pad until Level 4 appears in the display.

Delay Off 3. Touch **DELAY OFF** pad five times.

### **TURNTABLE ON/OFF**

For best cooking results, leave the turntable on. It can be turned off for large dishes.

Turntable On/Off Touch **TURNTABLE ON/OFF** pad to turn the turntable on or off.

#### NOTES:

- This option is not available in sensor cook, auto cook and defrost modes.
- Sometimes the turntable can become hot to touch. Be careful touching the turntable during and after cooking.
- Do not run the oven empty.

### CHILD LOCK

You may lock the control panel to prevent the microwave from being accidentally started or used by

The Child Lock feature is also useful when cleaning the control panel. Child Lock prevents accidental programming when wiping the control

Example: To set the child lock.

Touch and hold **ENTER/START** pad more than 3 seconds. **CHILD LOCK ON will** appear in the display window with two beeps.

Example: To cancel the child lock.

<u>ENTER</u> START

Touch and hold **ENTER/START** pad more than 3 seconds. LOCKED will disappear and you hear two beeps.

### LIGHT HI/LO/OFF

Light Hi/Lo/Off

Touch LIGHT HI/LO/ OFF pad once for bright light, twice for night light, or three times to turn the light

#### ADD 30 SEC.

A time-saving pad, this simplified control lets you quickly set and start microwave cooking without the need to touch the ENTER/ START pad.

Example: To set ADD 30 SEC. for 2 minutes.

Touch ADD 30 SEC. pad 4 times. The oven begins cooking and display shows time counting down.

#### LIGHT TIMER

You can set the LIGHT to turn on and off automatically at any time. The light comes on at the same time every day until reset.

Example: Turn on 2:00 AM, turn off 7:00 PM.

12 hour clock mode.

1. Touch LIGHT TIMER pad.

200

2. Enter the time you want the LIGHT to turn on.

Less

3. Touch ENTER/ START pad. 4. Touch 1 for AM.

<u>ENTER</u> START

5. Touch ENTER/ START pad.

700

6. Enter the time you want the LIGHT to turn off

<u>ENTER</u> START

7. Touch ENTER/ START pad.

2

8. Touch 2 for PM.

<u>ENTER</u> START

9. Touch ENTER/ START pad.

#### 24 hour clock mode.

Light Timer

1. Touch LIGHT TIMER pad.

200

2. Enter the time you want the LIGHT to turn on.

<u>ENTER</u> START

3. Touch ENTER/ START pad.

 $1_{\text{Less More}}$  0 0 4. Enter the time you want the LIGHT to turn off.

<u>ENTER</u> START

5. Touch ENTER/ START pad.

#### **Example: To cancel the LIGHT** TIMER.

1. Touch LIGHT TIMER pad.

0

2. Touch 0 pad.

#### MORE/LESS

The More(9)/Less(1) pads allow you to adjust pre-set cooking times. They only work in the Sensor Reheat. Sensor Cooking(except Beverage), Add 30 sec, Custom Cook or Time Cook modes. Use the More(9)/ Less(1) pads only after you have already begun cooking with one of these procedures.

1. To ADD more time to an automatic cooking procedure: Touch the More(9) pad.

Less

2. To REDUCE the time of an automatic cooking procedure: Touch the Less(1)

### COOKING AT HIGH POWER LEVELS

Example: To cook food for 8 minutes 30 seconds at 100% power.

8 3 0

1. Enter the cook time.

<u>ENTER</u> START

2. Touch ENTER/ START pad.

When the cook time is over, you will hear four beeps and **END** will display.

### COOKING AT LOWER POWER LEVELS

HIGH power cooking does not always give you the best results with foods that need slower cooking, such as roasts, baked goods, or custards. Your oven has 9 power settings in addition to HIGH.

Example: To cook food for 7 minutes 30 seconds at 70% power.

375°F 250°F 4

1. Enter the cook time.

Level

Touch POWER LEVEL pad.

7 375°F Enter the power level.

<u>ENTER</u> START

4. Touch ENTER/ START pad.

When the cook time is over, you will hear four beeps and **END** will display. See cooking guide for Power levels, page 12.

### IMPORTANT:

- DO NOT store or use the wire rack in this oven unless more than one item is being cooked or a recipe calls for it.
- Damage to the oven could occur

### COOKING WITH MORE THAN ONE COOK CYCLE

For best results, some recipes call for one Power Level for a certain length of time, and another Power Level for another length of time. Your oven can be set to change from one to another automatically, for up to three cycles if the first cycle is defrost.

Example: To cook food for 3 minutes at 90% power and then 70% power for 7 minutes 30 seconds.

3 0 0 250°F 450°F 450°F Power Level

- 1. Enter the first cook time.
- Touch POWER LEVEL pad.

More 9

3. Enter the power level.

7 3 0 375°F 250°F 450°F Power Enter the second cook time.

Power Level Touch POWER LEVEL pad.

**7** 375°F 6. Enter the power level.

<u>ENTER</u> START

7. Touch ENTER/ START pad.

When the cook time is over, you will hear four beeps and **END** will display.

### SENSOR OPERATING INSTRUCTIONS

Sensor Cook allows you to cook most of your favorite foods without selecting cooking times and power levels. The display will indicate the sensing period by scrolling the name of the food. The oven automatically determines required cooking time for each food item. When the internal sensor detects a certain amount of humidity coming from the food, it will tell the oven how much longer to cook. The display will show the remaining heating time.

For best results when cooking by Sensor, follow these recommendations:

- Food cooked with the sensor system should be at normal storage temperature.
- Glass turntable and outside of container should be dry to assure best cooking results.
- Most foods should always be covered loosely with microwavable plastic wrap, waxed paper, or a lid.
- 4. Do not open the door or touch the **STOP/CLEAR** pad during the sensing time. When sensing time is over, the oven beeps and the remaining cooking time will appear in the display window. At this time you can open the door to stir, turn, or rearrange the food.

#### **IMPORTANT:**

When using sensor cook, the oven must cool for 5 minutes between uses or food will not cook properly.

### SENSOR COOKING GUIDE

Appropriate containers and coverings help assure good Sensor cooking results.

- Always use microwavable containers and cover them with lids or vented plastic wrap.
- Never use tight-sealing plastic covers. They can prevent steam from escaping and cause food to overcook.

- Match the amount to the size of the container. Fill containers at least half full for best results.
- 4. Be sure the outside of the cooking container and the inside of the microwave oven are dry before placing food in the oven. Beads of moisture turning into steam can mislead the sensor.

### ADDING OR SUBTRACTING COOK TIME

By using the More(9) or Less(1) pads all of the sensor cook and time cook settings can be adjusted to cook food for a longer or shorter time.

#### **CAUTION**

- DO NOT leave microwave unattended while popping corn.
- DO NOT use the wire rack when popping commercially packaged popcorn.

### **POPCORN**

POPCORN pad lets you pop commercial-ly packaged microwave popcorn. Pop only one package at a time. For best results, use fresh bags of popcorn.

Example: To pop popcorn.

Popcorn

Touch **POPCORN** pad.

When the cook time is over, you will hear four beeps and **END** will display.

• Recommended amounts: 3.0-3.5 ozs.

### **PIZZA SLICE**

Reheating pizza with PIZZA SLICE pad lets you reheat one or several slices of pizza without selecting cooking times and power levels.

Example: To reheat 2 slices of pizza.

Pizza Slice Touch **PIZZA SLICE** pad.

When the cook time is over, you will hear four beeps and **END** will display.

• Recommended amounts: 1-4 slices.

#### NOTE:

If food is not thoroughly cooked or reheated when using the sensor feature, complete using a power level and cooking time. **DO NOT** continue using the sensor pad.

#### **BAKED POTATO**

The **BAKED POTATO** pad lets you bake one to six potatoes without selecting cooking times and power levels.

#### **NOTES:**

- Cooking time is based on a 8-10 oz. potato.
- Use the More(9)/Less(1) pads if cooking larger or smaller potatoes.
- Before baking, pierce potato with fork several times.
- If potato is not completely cooked, use Cooking Time. DO NOT use BAKED POTATO pad to complete cooking.

After baking, let stand for 5 minutes.

Example: To cook 2 potatoes.

Baked Potato Touch **BAKED POTATO** pad.

When the cook time is over, you will hear four beeps and **END** will display.

Recommended amounts: 1-6 potatoes.

#### SENSOR COOK

Using SENSOR COOK pad lets you heat common microwave-prepared foods without needing to program cooking times and power levels. SENSOR COOK has 5 preset food categories: Frozen Vegetable, Frozen Breakfast, Frozen Dinner, Fresh Vegetable, shrimp.

**Example: To cook Frozen Dinner.** 

Cook

 Touch SENSOR COOK pad.

3 250°F 2. Choose food category. (1-5)

Category	Touch Pad Number
Frozen Vegetable	1
Frozen Breakfast	2
Frozen Dinner	3
Fresh Vegetable	4
Shrimp	5

When the cook time is over, you will hear four beeps and **END** will display.

#### **Recommended amounts:**

Frozen Vegetable	1-4 Servings
Frozen Breakfast	4-8 ozs.
Frozen Dinner	8-14 ozs.
Fresh Vegetable	1-4 Servings
Shrimp	8-32 ozs.

### **REHEAT**

REHEAT pad lets you heat foods without needing to program cooking times and power levels. REHEAT has 3 preset categories: Dinner Plate, Casserole, and Pasta.

**Example: To reheat Casserole.** 

Reheat

1. Touch **REHEAT** pad.

2

2. Choose food category (1-3).

Category	Touch Pad Number
Dinner Plate	1
Casserole	2
Pasta	3

When the cook time is over, you will hear four beeps and **END** will display.

#### **Recommended amounts:**

Dinner Plate	1 serving
Casserole	1-4 servings
Pasta	1-4 sevings

### **SENSOR COOK TABLE**

CATEGORY		DIRECTIONS	AMOUNT
Pop	ocorn	Use only one microwave-only bag of popcorn at a time. Use caution when removing and opening the hot bag from oven. Let oven cool for at least 5 minutes before using again.	3.0 to 3.5 oz 1 package
Bal	red Potato	Prick each potato several times with fork. Place on turntable in spoke-like fashion. Let stand 3-5 minutes. Let oven cool for at least 5 minutes before using again. Use <b>More(9)</b> pad when cooking larger potatoes.	1 to 6 potatoes
Pizza Slice  Pizza Slice  Put 1-3 slices of pizza on a Microwave-safe plate with wide end of slice toward the outside edge of the plate. Do not let slices overlap. Do not cover. Let oven cool for at least 5 minutes before using again. Use More(9) pad to increase reheat time for thick crust pizza.		1 to 4 Slices	
Frozen Tbs. water. Cover with lid or vented plastic wrap during cooking and stir be		Place frozen vegetables in microwave-safe ceramic, glass or plastic dish and add 2-4 Tbs. water. Cover with lid or vented plastic wrap during cooking and stir before standing. Let oven cool for at least 5 minutes before using again. Use the <b>More(9)</b> pad when cooking dense vegetables such as carrots or broccoli spears.	1 to 4 servings
Frozen Follow package instructions for covering and standing. Use this pad for frozen sandwich, breakfast entree, etc. Let oven cool for at least 5 minutes before using again.		4 to 8 oz.	
COOK	Frozen Dinner	Remove food from outer wrapping and follow box instructions for covering and standing. Let oven cool for at least 5 minutes before using again.	8 to 14 oz.
0	Fresh Vegetables	Place fresh vegetables in microwave-safe ceramic, glass or plastic dish and add 2-4 Tbs. water. Cover with lid or vented plastic wrap during cooking and stir before standing. Let oven cool for at least 5 minutes before using again. Use the <b>More(9)</b> pad when cooking dense vegetables such as carrots or broccoli spears.	1 to 4 servings
	Shrimp	Arrange shrimp in a microwave-safe ceramic glass or plastic dish and add 2-4 Tbs melted butter. Cover with lid or vented plastic wrap during cooking and stir before serving. Let stand 3 minutes. Let oven cool at least 5 minutes before using again.	8 to 32 oz.

### **SENSOR REHEAT TABLE**

CATEGORY	DIRECTIONS	AMOUNT
Dinner Plate	Use only pre-cooked, refrigerated foods. Cover plate with vented plastic wrap or waxed paper, tucked under plate. If food is not as hot as you prefer after heating with SENSOR REHEAT, continue heating using cooking time and power level. Do not continue cooking using the <b>Reheat</b> pad. Contents:  - 3-4 oz. meat, poultry or fish (up to 6 oz. with bone)  - 1/2 cup starch (potatoes, pasta, rice, etc.)  - 1/2 cup vegetables (about 3-4 oz.)	1 serving (1 plate)
Casserole	Cover plate with lid or vented plastic wrap. If food is not as hot as you prefer after heating with SENSOR REHEAT, continue heating using time and power level. Do not continue cooking using the <b>Reheat</b> pad.	
Pasta	Stir foods once before serving. Contents: - Casserole-refrigerated foods. (Examples: Lasagna and beef stew.) - Pasta-Canned spaghetti and ravioli, refrigerated foods.	1 to 4 servings

### NOTE:

Desired food temperature varies from person to person. Use the **More(9)/Less(1)** pads to fit your temperature preference.

### **AUTO COOK**

AUTO COOK pad provides five preset categories for cooking.

Example: To Cook 2 ozs. of baby food.

Auto Cook

1. Touch AUTO COOK pad once.

2. Choose food category (1-5).

 $\underline{\underline{\cap}}_{START}^{ENTER} \quad 3. \text{ Touch } \textbf{ENTER/START} \text{ pad.}$ 

Category	Touch pad number
Baby Food	1
Beverage	2
Frozen Sandwich	3
Bacon	4
Instant Rice	5

When the cook time is over, you will hear four beeps and End will display.

### **AUTO COOK TABLE**

CATEGORY	DIRECTIONS	AMOUNT
Baby Food	Remove lid from baby food and place in the center of oven. Check temperature and stir well before serving. The <b>More(9)/Less(1)</b> pads cannot be used with the baby food. Follow manufacturer's instructions, some baby food should not be heated in the microwave oven.	2.5, 4, 6 ozs.
Beverage	Use measuring cup or mug; do not cover. Place the beverage in the oven. After heating, stir well. Let oven cool for at least 5 minutes before using again.  Note: • Reheat times based on an 8 ounce cup. • Beverage heated with the beverage feature may be very hot. • Remove container with care.	
Frozen Sandwich	Place frozen sandwich in susceptor "sleeve" (which is in package) and put on plate.	1, 2 EA
Bacon	Place 2 paper towels on plate and arrange bacon on towels, do not overlap. Cover with additional paper towel. Remove paper towel immediately after cooking. Use More(9)/Less(1) pads for desired crispness.	2, 4, 6 slices
Instant Rice	Follow microwave package preparation instructions. Use a large microwave-safe cookware to prevent boilover.	2, 4 servings

Desired food temperature varies from person to person. Use the More(9)/Less(1) pads to fit your temperature preference.

### AUTO DEFROST

Defrost choices are preset in the oven. The defrost feature provides you with the best defrosting method for frozen foods, because the oven automatically sets the defrosting times according to the weight you enter. For added convenience, the AUTO DEFROST beeps to remind you to check or turn over the food during the defrost cycle.

After touching the AUTO DEFROST pad once, select the food weight. Available weight ranges are 0.1 to 6.0 lbs.

Example: To defrost 1.8 lbs of meat.

Auto Defrost 1. Touch AUTO DEFROST pad.

1<sub>Less</sub> 8

2. Enter the weight.

<u>ENTER</u> START

3. Touch ENTER/START pad.

#### NOTES:

- After you touch ENTER/START pad, the display counts down the defrost time. The oven will beep twice during the Defrost cycle. At this time, open the door and turn the food as needed. Remove any portions that have thawed then return frozen portions to the oven and touch ENTER/START pad to resume the defrost cycle.
- The oven will not stop during the BEEP unless the door is opened.

#### **DEFROSTING GUIDE**

 Follow the instructions below when defrosting different types of food.

Touch pad No.	Food	Standard Amount	Procedure
1	MEAT	2.5-6.0 lbs.	Start with the food placed fat side down. After each stage, turn the food over and shield any warm portions with narrow strips of aluminum foil. Let stand, covered, for 15 to 30 minutes.
2	POULTRY	0.5-3.0 lbs.	After each stage, rearrange the food. If there are any warm or thawed portions of food, shield them with narrow flat pieces of aluminum foil. Remove any pieces of food that are nearly defrosted. Let stand, covered, for 5-10 minutes.

Touch pad No.	Food	Standard Amount	Procedure
3	FISH	0.5-3.0 lbs.	After each stage, rearrange the food. If there are any warm or thawed portions of food, shield them with narrow flat pieces of aluminum foil. Remove any pieces of food that are nearly defrosted. Let stand, covered, for 5-10 minutes.
4	BREAD	0.1-2.0 lbs.	Arrange rolls in a circle horizontally on paper towels in the middle of turntable. Turn over after half of the defrosting time.
5	GROUND BEEF	1.0 lb.	After each stage, remove any pieces of food that are nearly defrosted. Let stand, coverd with foil for 5-10 minutes.

### DEFROST TIPS

- When using AUTO DEFROST, the weight to be entered is the net weight in pounds and tenths of pounds (the weight of the food minus the container).
- Use AUTO DEFROST only for raw food. AUTO DEFROST gives best results when food to be thawed is a minimum of 0°F (taken directly from a true freezer). If food has been stored in a refrigerator-freezer that does not maintain a temperature of 5°F or below, always program a lower food weight (for a shorter defrosting time) to prevent cooking the food.
- If the food is stored outside the freezer for up to 20 minutes, enter a lower food weight.
- The shape of the package alters the defrosting time.
   Shallow rectangular packets defrost more quickly than a deep block.
- Separate pieces as they begin to defrost. Separated pieces defrost more easily.
- Shield areas of food with small pieces of foil if they start to become warm.
- You can use small pieces of aluminum foil to shield foods like chicken wings, leg tips, and fish tails, but the foil must not touch the side of the oven. Foil causes arcing, which can damage the oven lining.

### **SNACKS**

SNACKS lets you heat 4 categories of food: Nachos, Chicken Wings, Potato Skins, and Cheese Sticks. Example: To cook chicken wings.

Snads

1. Touch SNACKS pad.

200°F

2. Choose food category(1-4).

<u>ENTER</u> START

3. Touch ENTER/START pad.

Category	Touch Pad Number
Nachos	1
Chicken Wings	2
Potato Skins	3
Cheese Sticks	4

### **SNACKS CHART**

Item	Amount or servings	Remarks
Nachos	1 serving	<ul> <li>Place tortilla chips on plate without overlapping.</li> <li>Sprinkle evenly with cheese.</li> <li>Contents: <ul> <li>2 cups tortilla chips</li> <li>1/3 cup grated cheese</li> </ul> </li> </ul>
Chicken Wings	5-6 oz. 7-8 oz.	<ul> <li>Use pre-cooked, refrigerated chicken wings.</li> <li>Place chicken wings around plate in spoke fashion and cover with wax paper.</li> </ul>
Potato Skins	1 cooked potato 2 cooked potatoes	<ul> <li>Cut cooked potato into 4 even wedges. Scoop or cut out potato flesh, leaving about 1/4" of skin.</li> <li>Place skins in spoke fashion around plate.</li> <li>Sprinkle with bacon, onions and cheese. Do not cover.</li> </ul>
Cheese Sticks	5-7 pcs 8-10 pcs	Place cheese sticks on plate in spoke fashion.     Do not cover.

### SOFTEN/MELT

SOFTEN/MELT lets you soften or melt 3 categories of food: **Melt Chocolate**, **Soften Cream Cheese and Melt Butter**. **Example: To melt chocolate**.

Soften/	
<b>Melt</b>	

1. Touch **SOFTEN/MELT** pad.

1 100°F 2. Choose food category(1-3).

<u>ENTER</u> START

3. Touch ENTER/START pad.

Category	Touch Pad Number
Melt Chocolate	1
Soften Cream Cheese	2
Melt Butter	3

### **SOFTEN/MELT CHART**

Item	Amount or servings	Remarks	
Melt Chocolate	2 squares or 1 cup chips	<ul> <li>Place chocolate chips or square in a microwave-safe dish.</li> <li>Stir well at half time when the oven beeps, and re-start the oven.</li> <li>Unless stirred, the chocolate keeps its shape even when heating time is over.</li> </ul>	
Soften Cream Cheese	1 package (8 oz.)	Unwrap cream cheese and place on microwave-safe dish.     Let stand 1-2 minutes.	
Melt Butter	1 stick (1/4 lb.) 2 sticks (1/2 lb.)	Remove wrapping and cut butter in half vertically.     Place butter in dish, cover with wax paper.	
	2 Sticks (1/2 lb.)	Stir well after finishing and let stand 1-2 minutes.	

### MICRO/CONVECT

This oven can cook food without entering cooking time or power level using MICRO/CONVECT. MICRO/CONVECT has 4 food categories: Whole Chicken, Roast Pork, Frozen Lasagna, Baked Potatoes.

Example: To cook 2 lbs. roast pork.

STOP CLEAR

1. Touch STOP/CLEAR pad.

Micro Convect 2. Touch MICRO/CONVECT pad.

200°F

3. Choose food category.

2 0 200°F 450°F 4. Touch number pads for food quantity.

<u>ENTER</u> START

5. Touch ENTER/START pad.

### MICRO/CONVECT TABLE

CATEGORY	TOUCH PAD	WEIGHT	RACK SIZE	COMMENTS
Whole Chicken	1	2.0-4.0 lbs.	Low rack on enamel metal tray on glass turntable.	Fold chicken wings under the chicken. Brush with melted butter. Place chicken, breast side down on low rack on metal tray on turntable. When oven beeps, turn chicken over and restart oven. Let stand 5 minutes.
Roast Pork, Boneless Tenderloin	2	2.0-4.0 lbs.	Low rack on enamel metal tray on glass turntable.	Place pork on low rack. Place wire rack on metal tray on turntable. When oven beeps, turn roast over and restart oven. Let stand 5 minutes.
Frozen Lasagna	3	10 oz. or 21 oz.	Low rack on glass turntable.	Place lasagna on low rack. Place wire rack on glass turntable. Let stand 3 to 5 minutes.
Baked Potatoes	4	1-4 potatoes	Medium wire rack on glass turntable.	Place potatoes on medium wire rack. Place wire rack on glass turntable. When oven beeps, turn potatoes over and restart oven. Let stand 5 minutes.

#### NOTE:

When checking food for doneness during cooking, carefully remove food, rack and drip tray (if used) from the oven and close oven door to prevent excessive heat loss.

### **AUTO BROIL COOKING**

(Hamburger, Beef Steak, Chicken Pieces, Fish Steak)

Auto Broil lets you cook with broil heat, without setting a cooking time. Choose the category of the food you are cooking and enter the quantity.

See the AUTO BROIL CHART on this page for the settings available.

STOP CLEAR

1. Touch STOP/CLEAR pad.

Auto Broil 2. Touch AUTO BROIL pad.

1<sub>Le</sub>

3. Choose food category (1-4).

1 Less 100°F 4. Touch number pad for food quantity.

<u>ENTER</u> START

5. Touch ENTER/START pad.

#### NOTE:

- Place food on ceramic enamel drip pan.
- Place drip pan on high rack.
- Place rack on turntable.

CATEGORY	TOUCH PAD NO.	AMOUNT	COMMENT	
Hamburger	1	1-6 patties	Place hamburgers on ceramic enamel drip pan then place pan on high rack and in oven. When oven beeps, turn the food over and re-start the oven.	
Beef Steak	2	1-2 pcs.	Place beef steak on ceramic enamel drip pan then place pan on hig rack and in oven. When oven beeps, turn the food over and re-star the oven.	
Chicken Breast	3	0.4-2.0 lbs.	Place chicken breast on ceramic enamel drip pan then place pan o high rack and in oven. When oven beeps, turn the food over and re start the oven.	
Fish Steak	4	1-2 pcs.	Place fish steak on ceramic enamel drip pan then place pan on high rack and in oven. When oven beeps, turn the food over and re-start the oven.	

### NOTE:

When checking food for doneness during cooking, carefully remove food, rack and drip tray (if used) from the oven and close oven door to prevent excessive heat loss.

#### CONVECTION COOKING

During convection cooking, a heating element is used to raise the temperature of the air inside the oven. Convection cooking temperature ranges from 100°F to 450°F. It is best to preheat the oven when convection cooking.

Lower oven temperature by 25°F from package recommended temperature instructions if lighter browning is preferred. The baking time may vary according to the food condition or individual preference. Check doneness at the minimum time and then adjust time by touching the More(9) or Less(1) pad.

### **A** CAUTION

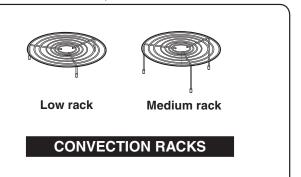
- To avoid risk of burns, handle utensils, racks, and door with care. Allow oven, utensils, and racks to cool before cleaning. Oven, utensils, and racks, become hot during operation.
- To avoid risk of personal injury or property damage, do not use oven without turntable in place.
- To avoid risk of personal injury or property damage, do not cover turntable or rack with aluminum foil.
- To avoid risk of property damage, do not use lightweight plastic containers, plastic wraps or paper products during a convection cooking cycle.
- **Do Not** touch hot surfaces (Including oven cavity, oven door, turntable, rack or pan; use pot holder).

#### CONVECTION RACK

Use the convection racks for convection and combination cooking only.

#### Do not use rack in microwave-only mode.

For best results, place food on the Convection Rack (Medium rack, Low rack).



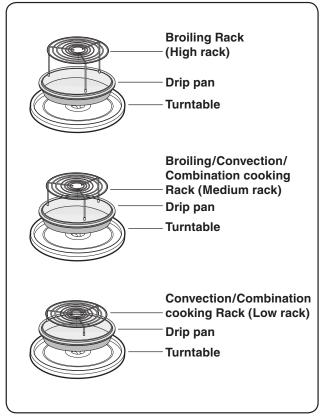
#### **DRIP PAN**

A ceramic enamel drip pan has been included with your oven. When roasting in the oven, place food directly on the ceramic enamel pan. Place the rack inside the ceramic enamel drip pan. Center the drip pan and rack on the glass turntable.

When cooking is complete, use potholders to remove the drip pan and rack from the hot oven. **Take care not to spill the hot drippings**. Remove food from the rack.

For best results when broiling, remove the ceramic enamel pan and rack from the oven to turn food. Replace the tray and rack on the turntable to continue broiling.

Do not use in microwave-only mode.



### CONVECTION BAKING WITH PREHEATING

Example: To set Convection Baking at 325°F. Place low or medium rack on glass turntable. Use drip pan if cooking meats or poultry on the rack.

STOP CLEAR

1. Touch STOP/CLEAR pad.

Convection

2. Touch CONVECTION pad.

5 325°F 3. Touch a number pad to select baking temperature.



4. Touch ENTER/START pad twice.

 After preheating, display scrolls PLACE FOOD ON RACK with sound. Open the door, place food on the convection rack.

2000

Touch number pads for cooking time.
 You can enter a time up to 99 minutes
 99 seconds. See Convection cooking
 Guide, page 24.

<u>ENTER</u> START

Close the door and Touch ENTER/ START pad.

#### NOTES:

- The oven temperature drops very quickly when the door is opened; however, this should not prevent food from being fully cooked during normal cooking time.
- When checking food for doneness during cooking, carefully remove food, rack and drip pad (if used) from the oven and close oven door to prevent excessive heat loss.

### CONVECTION BAKING WITHOUT PREHEATING

(Meats, Casseroles and Poultry)

Example: To set Convection Baking at 325°F for 20 minutes. Place low or medium rack on glass turntable. Use drip pan if cooking meats or poultry on the rack.

STOP CLEAR

1. Touch STOP/CLEAR pad.

Convection 5

2. Touch CONVECTION pad.

5 325°F  Touch a number pad to select baking temperature. (You can enter a temperature between 100°F and 450°F.)

<u>ENTER</u> START 4. Touch ENTER/START pad once.

2000

5. Touch number pads for cooking time. You can enter a time up to 99 minutes 99 seconds.

<u>ENTER</u> START 6. Touch ENTER/START pad.

#### **IMPORTANT**:

- If you set an incorrect cooking time, just re-enter the correct cooking time and then touch ENTER/START pad.
- If you touch STOP/CLEAR pad then enter the correct cooking time, you will cancel the CONVECTION operation and will be cooking with microwave energy and NOT convection.

### **BROIL COOKING**

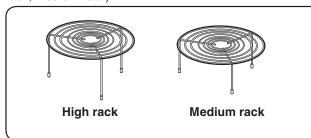
Broiling is cooking under direct heat. This oven can broil meat, fish, poultry, and vegetables, or toast bread. Your oven uses broil cooking whenever you use the **Broil** Pad.

- Foods that are suitable for broiling should be tender, moderately lean and no more than 1 inch thick. Fish steaks, chicken breasts and hamburgers are ideal for broiling.
- Always use either the tall or medium rack when broiling. Place the rack on the ceramic enamel drip pan.
- For even browning, turn the food over halfway through broiling.
- Do not leave the door open for long periods of time when using the broil element. This will cause the oven temperature to drop and could affect cooking performance.

#### **BROILING RACK**

Use the broiling rack for broil and auto broil cooking. **Do not** use racks in microwave-only mode.

For best results, place food on the broiling rack (High rack, Medium rack).



#### **BROIL COOKING**

**Example: To set Broil Cooking for 20 minutes.** 

STOP CLEAR 1. Touch STOP/CLEAR pad.

Broil

2. Touch BROIL pad.

 $\underset{\tiny{200^{\circ}F}}{2} \, \underset{\tiny{450^{\circ}F}}{0} \, \underset{\tiny{450^{\circ}F}}{0} \, \underset{\tiny{450^{\circ}F}}{0}$ 

3. Touch number pads for cooking time. You can enter a time up to 99 minutes 99 seconds.

<u>ENTER</u> START

4. Touch ENTER/START pad.

#### NOTES:

- If you open the door or touch STOP/CLEAR pad during broiling, broiling will stop.
- To resume broiling, close the door and touch ENTER/ START pad.
- When broiling time ends, the display will show END and four tones will sound.
- After cooking, the display will return to the time of day, when you open the door.

#### **AUTO BROIL TABLE**

FOOD		COOK TIME (Minutes per side) Medium - 160°F	COOK TIME (Minutes per side) Well done - 170°F	COMMENTS	
Hamburger ¾"			11-13 minutes	Remove pan and turn meat over halfway throught cooking.	
Doof	Ribeye, ¾" to 1"	7-10 minutes	10-12 minutes	Demonstrate and them we get a very balfinger	
Beef Steak	New York Strip, 3/4" to 1"	7-10 minutes	10-12 minutes	Remove pan and turn meat over halfway throught cooking.	
Sleak	T Bone Steak, 1"	9-11 minutes	11-13 minutes	tillought cooking.	
	Chicken Breast, bone in		10-12 minutes	Remove pan and turn meat over halfway	
Poultry	Chicken Breast, boneless		9-11 minutes	throught cooking.  • Cook chicken breast to 170°F.	
	Chicken Legs		11-14 minutes		
	Chicken Thighs		13-15 minutes	Cook chicken legs/thigh to 185°F.	
	Pork Chops, Boneless, 3/4"	7-9 minutes	8-11 minutes	Remove pan and turn meat over halfway	
Pork	Pork Chops, Bonel in, 3/4"	7-9 minutes	8-11 minutes	throught cooking.	
	Ham Slice, 1/2" to 3/4"	5-7 minutes	6-8 minutes	<ul> <li>Ham Steak - reheat to 140°F.</li> </ul>	
Fish	Fillet, ¾" to 1"		15-17 minutes (Total Time)	Do not turn fish.	
	Steak, 3/4" to 1"		16-19 minutes (Total Time)	Cook fish until it flakes.	

### **Care and Cleaning**

### **CARE AND CLEANING**

For best performance and safety, keep the oven clean inside and outside. Take special care to keep the inner door panel and the oven front frame free of food or grease build-up. Never use rough powder or pads. Wipe the microwave oven inside and out, including the hood bottom cover, with a soft cloth and a warm (not hot) mild detergent solution. Then rinse and wipe dry. Use a chrome cleaner and polish on chrome, metal and aluminum surfaces. Wipe spatters immediately with a wet paper towel, especially after cooking chicken or bacon. Clean your oven weekly or more often, if needed.

### Follow these instructions to clean and care for your oven.

- Keep the inside of the oven clean.
   Food particles and spilled liquids can stick to the oven walls, causing the oven to work less efficiently.
- Wipe up spills immediately. Use a damp cloth and mild soap. Do not use harsh detergents or abrasives.
- To help loosen baked on food particles or liquids, heat two cups of water (add the juice of one lemon if you desire to keep the oven fresh) in a four-cup measuring glass at High power for five minutes or until boiling. Let stand in the oven for one or two minutes.
- Remove the glass tray from the oven when cleaning the oven or tray. To prevent the tray from breaking, handle it carefully and do not put it in water immediately after cooking. Wash the tray carefully in warm sudsy water or in the dishwasher.
- Clean the outside surface of the oven with soap and a damp cloth.
   Dry with a soft cloth. To prevent damage to the operating parts of the oven, don't let water seep into the openings.
- Wash the door window with very mild soap and water. Be sure to use a soft cloth to avoid scratching.

- If steam accumulates inside or outside the oven door, wipe with a soft cloth. Steam can accumulate when operating the oven in high humidity and in no way indicates microwave leakage.
- Never operate the oven without food in it; this can damage the magnetron tube or glass tray. You may wish to leave a cup of water in the oven when it is not in use to prevent damage if the oven is accidentally turned on.

### CONVECTION/BROILING RACKS/DRIP PAN

Wash the convection and broiling racks and metal tray/drip pan with a mild soap and a soft or nylon scrub brush. Dry completely. Do not use brasive scrubbers or cleaners to clean racks and metal tray/drip pan.



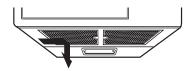
### CLEANING THE GREASE FILTER

The grease filter should be removed and cleaned often, at least once a month

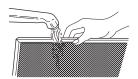
### **A** CAUTION

To avoid risk of personal injury or property damage, do not operate oven hood without filters in place.

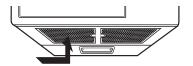
 To remove grease filter, slide filter to the side. Pull filter downward and push to the other side. The filter will drop out.



 Soak grease filter in hot water and a mild detergent. Rinse well and shake to dry. Do not use ammonia or place in a dishwasher. The aluminum will darken.



To reinstall the filter, slide it into the side slot, then push up and toward oven center to lock.



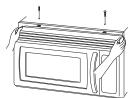
### CHARCOAL FILTER REPLACEMENT

If your oven is vented to the inside, the charcoal filter should be replaced every 6 to 12 months, and more often if necessary. The charcoal filter cannot be cleaned. To order a new charcoal filter, contact the Parts Department at your nearest Authorized Service Center or call

### 1-800-536-6247

(inside U.S.A and Canada).

- 1. Unplug oven or turn off power at the main power supply.
- 2. Open the door.
- 3. Remove the two vent grille mounting screws. (2 middle screws)
- 4. Slide the grille to the left, then pull straight out.

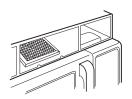


5. Remove old filter.



### **Care and Cleaning**

Slide a new charcoal filter into place. The filter should rest at the angle shown.



Replace the mounting screws and close the door. Turn the power back on at the main power supply and set the clock.

CHARCOAL FILTER PART NO. 8310P009-60

### COOKTOP/NIGHT LIGHT REPLACEMENT

### **A** CAUTION

To avoid personal injury or property damage, wear gloves when replacing light bulb.

- 1. Unplug the oven or turn off power at the main power supply.
- 2. Remove the bulb cover mounting screws.



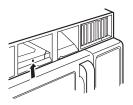
- 3. Replace bulb with 20 watt appliance bulb.
- 4. Replace bulb cover, and mounting screws
- 5. Turn the power back on at the main power supply.

### OVEN LIGHT REPLACEMENT

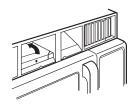
- 1. Unplug oven or turn off power at the main power supply.
- 2. Open the door.
- 3. Remove the vent cover mounting screws. (2 middle screws)
- 4. Slide the grille to the left, then pull straight out.



Remove the screw located above the door near the center of the oven that secures the bulb holder.



6. Remove bulb holder.



- Replace bulb with a 20 watt appliance bulb.
- 8. Replace the bulb holder.
- Replace the grille and 2 screws. Turn the power back on at the main power supply.

#### **OPTIONAL**

Filler Kits

UXA3036BDB - BLACK UXA3036BDW - WHITE UXA3036BDS - STAINLESS STEEL

When replacing a 36" range hood, the filler kit fills in the additional width to provide a custom built-in appearance.

For installation between cabinets only; not for end-of-cabinet installation.

Each kit contains two 3"-wide filler panels.